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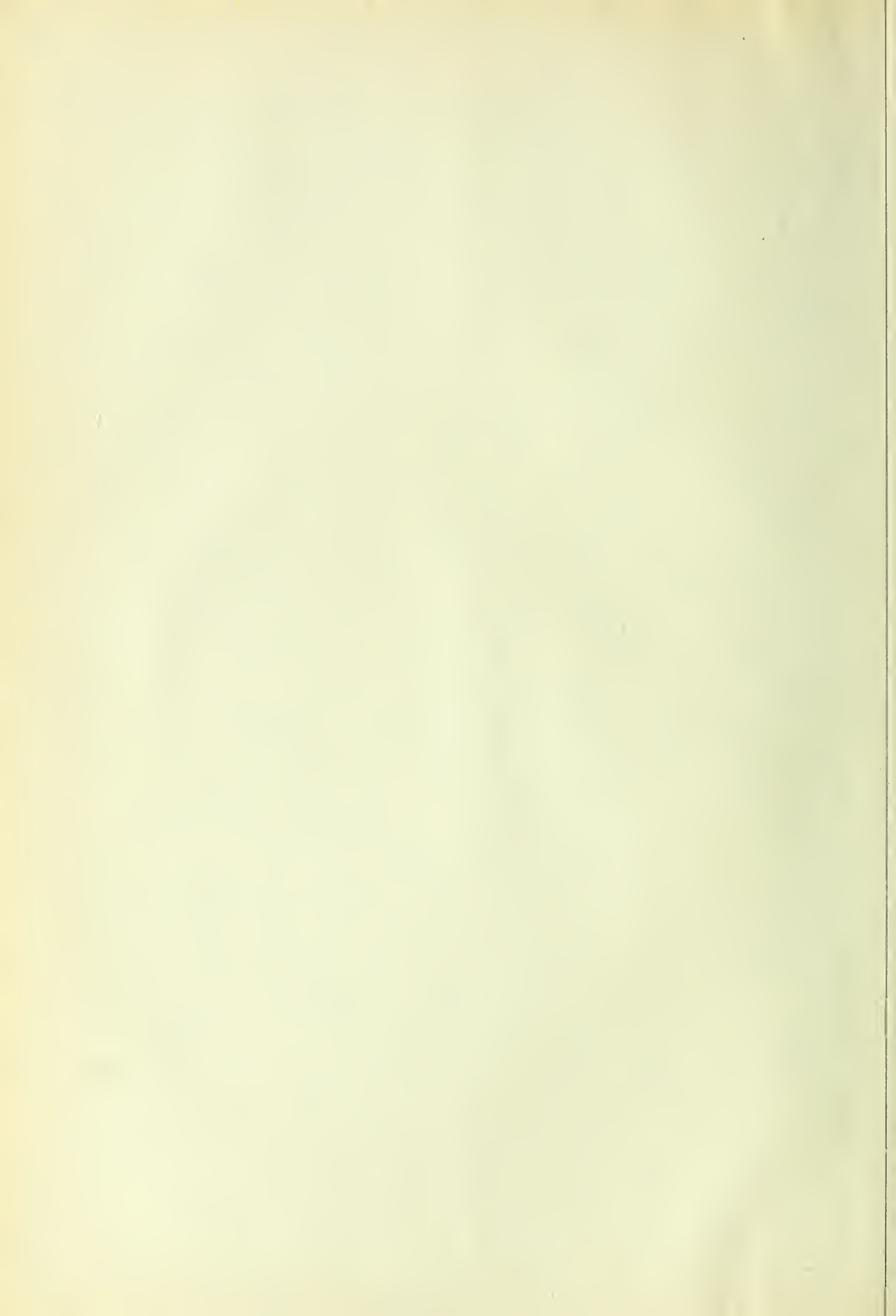
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# California State Journal of Medicine

ISSUED MONTHLY OWNED AND PUBLISHED BY THE  
MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

Vol. XVIII, No. 1

JANUARY, 1920

\$1.00 a Year

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## Graves' Gynecology

491 Illustrations  
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For this edition Dr. Graves has given his book a thorough revision and brought it completely up to date. New matter has been added to the extent of 115 pages, and 66 additional illustrations included. The illustrations in this work form a feature. There are 491 of them, 100 in colors—microscopic, gross pathologic, and operative technic step by step.

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FRANK F. WEDEKIND---

TRUSSES, ELASTIC GOODS  
ABDOMINAL SUPPORTERS  
SEE PAGE XI

awake but up and doing. Health is the most vital thing in the life of each individual of each community. It is generally conceded that it is better to have a sanitary community than a sick community.

So many health measures that have proven effective elsewhere are not adequately applied in California. There is vast room for improvement during 1920 in this direction. The gospel of health is not spread by those who stand idly in the market place gazing at the drifting clouds.

All members of the profession can and should aid in this important work. No one knows the health needs of the community better than the physicians. They feel the public pulse so often that they know its rhythm and reason.

Let no one vainly try to do during 1920 what can only be accomplished by concerted effort. The biggest things in life cannot be accomplished by one individual playing a solitary game. It has been well said that the person who thinks he can get along without others is foolish, and if he thinks others cannot get along without him he is a fool.

As a permanent 1920 resolution, let us cultivate the cooperative spirit and all highly resolve, that by applying the helpful agencies known to modern medicine, we will make our part of the world a better place to live in, and that unselfishly and unflinchingly we will fulfill our professional and civic duties.

In this way we will not only initiate a new calendar but a new era of development.

#### ANNUAL TAX NOW DUE.

Particular attention is called to the fact that the annual tax of \$2.00 is now due and payable by all persons holding certificates to practice the healing art in the State of California. Failure to pay this tax to the Board of Medical Examiners within sixty days of January 1, causes automatic forfeiture of license. It also leads to omission of the name of the offender from the official directory issued annually by the Board. Re-instatement can only follow special application in a specified form, this application to be accompanied by a penalty of \$10.00. In case you have not received due notice of this tax, it may well be that you have not, as required by law, kept the Board of Medical Examiners informed of your changes of address. This tax is necessary, and is imposed by law and it is not in the option of the Board of Medical Examiners to remit or omit it. *It must be paid.*

Those who have paid the tax covering any portion of 1919 must none the less pay the \$2.00 required for 1920. Do not delay unless you wish to make trouble for yourself and forfeit \$10.00.

It is worth your while to read over the addenda published in the back of the official directory issued by the State Board of Medical Examiners. You will find several points of special interest. You will find, for instance, that the law requires your license to practice, to be prominently displayed in your office.

#### MUNICIPAL EMERGENCY HOSPITAL RULES.

A matter of no small importance in the public health program of a municipality is its emergency hospital service. Too often the attitude of the medical profession as well as of the lay public is that service on such duty is merely a polite form of graft whereby the attending staff is afforded opportunity to secure patients of right belonging as patients to outside surgeons. Such an attitude is sometimes all too justifiable. It is a pleasure, therefore, as well as a matter of instruction, to comment on the excellent organization and administration attained in the San Francisco emergency hospital service under the direction of Dr. Alanson Weeks, and now to be continued by Dr. Edmund Butler, who succeeds to the position of Chief Surgeon following the recent resignation of Dr. Weeks. Of special interest are the following rules, which might well serve as a model for all emergency hospital services.

1. Under no circumstances is any doctor of this Service to take for his own any case first seen by him in an Emergency Hospital.

2. Immediate notification of the family physician and the relatives of all cases brought to an Emergency Hospital. If patient has no physician, a list of at least six doctors, who are known to be reputable, is to be given him from which he may select one.

3. The Doctor on duty is directly responsible for the searching and booking of valuables of patients.

4. An Emergency Hospital sticker reading "Emergency Dressing only. Have your own doctor examine at once" is to be placed upon all dressings made in Emergency Hospitals.

#### INDUSTRIAL PHYSIOLOGY.

This term is applied by Frederic S. Lee\* to the hygienic or physiologic aspects of industrial activity. The war has demonstrated anew the close relationship between industrial efficiency and health. Efficiency and industrial success depend after all, on the harmonious and healthful operation of individual human bodies. These facts are receiving attention from the more thoughtful and far-sighted industrial leaders. The methods of industrial physiology are based on observation and experiment. Careful and accurate analysis of output and of physiologic effects of work are made. As a result, both employer and worker will soon recognize that industry must be organized on an intelligent basis and "not, as heretofore, on a basis of ignorance of how the worker can do his best."

Lee mentions among the subjects being investigated and deserving investigation, the following topics. The high cost of a high labor turnover is shown by increased production cost, increased accidents and the necessity for training new workers. Food and efficiency are closely related. Physiologic analysis of certain operations has been aided by the cinematograph which has led to simplified manipulations and less strain on the worker. Accidents are closely related to fatigue, inexperience, fast work, poor light, heat, and other causes. The

\*P. H. Reports, April 11, 1919.



problem of the woman in industry is simply to find those places for which she is best suited. Night work is less efficient than day work. Shorter hours lead toward an optimum of industrial efficiency as gauged by output. Frequent rest periods have the same effect. The use of physiologic and psychologic tests in selecting workers for certain jobs opens up a wide field. Self-limitation of work by the worker presents certain problems in this study and the worker should work up to his physiologic capacity, which in turn, should not be exceeded.

Such a discussion as Lee has provided, shows once more the strategic position of the doctor in industry and what a virgin field of industrial development awaits the development of industrial physiology.

#### HOSPITAL SERVICE.

We take pleasure and pride in offering to our readers a new section devoted to hospital service. It is only through the instrumentality of thoroughly equipped and organized hospitals that medicine can be even approximately applied in its fulness.

Well trained physicians and surgeons of many communities have felt the heavy handicap that is placed upon their efficiency by inadequate hospital facilities. The practical value of the hospital hints which will appear from month to month in the columns of the Journal we are assured will be welcomed and appreciated by all progressive physicians.

A hospital with the minimum requirements and organized along the lines set forth in the article on Hospital Betterment in California on page 29 of this issue of the Journal tells the story of the standards of the medical men of the community, and also reflects the interest of the residents in the health of the community. In a community where we find a good hospital we know that medical standards are maintained. It follows as night the day that better hospitals produce better medicine.

#### DOES INDUSTRIAL MEDICINE PAY?

Under this title, the Monthly Labor Review for October, 1919, summarizes a study by H. E. Mock<sup>1</sup> of the development, scope and benefits of industrial medicine and surgery. Emphasis is laid on the economic value to the employer of a system of physical examinations of applicants for work before employment. Physical selection of workers for the specific work they are best fitted to do is important not only to the employer, however, but also to the employee.

Mock reviews some of the sources of waste arising out of employment of the physically unfit as follows: 1. The unfit who later must be discharged because of inability to do the work; 2. The unfit who gradually lose efficiency because of physical inaptitude or partial disability; 3. The unfit who are subject to a high accident rate; 4. Those who receive undue disability from accidents due to pre-existing physical defects or disease; 5. Those who are afflicted with some con-

tagious disease, including tuberculosis and venereal disease; 6. Those who are mentally deficient.

Such an analysis shows clearly the protection to the worker from such pre-employment physical examination. The reduction of labor turn-over effected by this means is in itself a factor of considerable economic saving. It is certainly incumbent, as Mock advises, on every company surgeon, safety engineer and welfare worker to "show that the benefits to the employer are in direct ratio to the thoroughness and completeness of the plan which he adopts for the conservation of the health of his employees."

### Editorial Comment

Some cases of patent malaria can be diagnosed by a rise of temperature and the appearance of the plasmodia in the circulating blood after the hypodermic injection of one milligram of adrenalin. This reaction may appear up to two days after the injection and may require two injections for its production. A negative result does not disprove the presence of malaria.

In a recent review of current work and opinion on the thymus gland, W. E. Blatz<sup>1</sup> of Toronto, comes to the conclusion that it is impossible to attribute any definite function to this organ and that it probably is not a gland of internal secretion. He quotes E. R. Hoskins to the effect that "the thymus functions as a lymphoid organ in infancy and childhood when a large number of lymphocytes and leucocytes are needed to combat infections." According to this opinion, the thymus resembles such lymphoid organs as the tonsils which undergo involution when no longer needed physiologically.

Recognizing that the newspaper ads of quack specialists and "cures" for venereal diseases were one of the gravest obstacles in the campaign for the eradication of venereal disease, the U. S. Public Health Service sent a request to 20,000 advertising media in the United States requesting them to discontinue this class of advertising. All but 140 of this number have definitely agreed to do so. Most of the better newspapers had already found it good business to stop this class of advertising. All of them now recognize it and venereal disease "cures" and "specialists" now are a sure indication that the paper or journal carrying them is behind the times and unfit for decent circulation.

It is a sign of the times that physicians as a class and as individuals are awaking to their responsibility in human conservation. We are saving this and saving that, and fighting the H. C. L. with economy and production. All very well. How about saving human life and prolonging it? The high cost of dying keeps pace with other costs, and death and illness create a sum total of economic, social and moral costs which is mountainous in its disastrous effects on the sons of men. Hence it is well that we should set disease prevention before disease cure, and healthful living before unnecessary dying.

<sup>1</sup> Jour. Indus. Hyg., Sept., 1919.

## Original Articles

### HYDROCEPHALIC EPILEPSY WITH CASE REPORT.\*

By CECIL E. REYNOLDS, M. D., Los Angeles.

Three cases of hydrocephalic epilepsy cured by operation are herewith presented. The first was a girl aged five who, prior to operation was hemiplegic, speechless and had suffered from fits for two years, which during the last six months of her illness were as frequent as seven to twenty in the twenty-four hours. Since operation on November 9th, 1917, she has been quite free from fits and is in splendid condition both mentally and physically.

The second case was a man of 39 years who had suffered from Jacksonian epilepsy starting in the right leg seven months prior to operation which was performed on February 14th, 1919. He was brought to operation comatose from pressure and blind from optic neuritis. All symptoms disappeared after the right subtemporal decompression and left osteoplastic flap operations. The Wasserman was negative but in spite of the result, a full diagnosis was felt to be still in some doubt.

Case 3 is reported in full as follows:

*History:* L. H., female, born October 29, 1911, of good stock except that the paternal grandmother died of tuberculosis. She was always a healthy well-nourished child until she contracted whooping cough in June 1916 which dragged on until December, 1916, during which month she had bad sore throats and fever. Her tonsils were removed by a specialist January, 1917. From this time until March she cried out in her sleep. During March she contracted a habit of rubbing the palm of the right hand upon the head of a "Teddy Bear" and, when questioned, said her hand itched. Later in the month of March 1917, she ran to her mother during the day with her right hand in a state of involuntary flexion. This was repeated with increasing frequency and severity, and she would grasp the right hand with the left when she felt the cramp coming on. In a few weeks the contractions were so strong as to resist her father's efforts to open the hand. Consciousness was unaffected in these attacks, and at this time it was not known if she was having fits at night. In April 1917 a nurse slept with her and discovered that she was having fits at night about four in number in which the whole body stiffened and the right arm was convulsed. Also she was having from one to three fits daily of the tonic basal type. The family physician gave bromides and performed a circumcision. The attacks from June onward became solely nocturnal and more severe and frequent after a febrile attack in July in which the temperature was 103. In October 1917 the physician commenced to give "luminol," and this preparation in 5 grain doses t.i.d.s. is credited with reducing the number of fits per night to three or four by December 1917. Dur-

ing this time until I first saw her in October 1918, she complained frequently of headache "all over," and at times of nausea, but seldom if ever vomited; obstinate constipation was a marked feature, and her nose bled almost every week. The appetite was poor but the diet had been greatly restricted. A Wassermann test of the blood was negative. During the summer of 1918 the condition became steadily worse, until about October 5th she was having almost continuous fits every night, and on October 18th remained unconscious, cyanosed and rigid for so long in spite of all efforts that a fatal termination was expected.

On October 19, 1918, I was asked to meet Dr. J. H. Utley and Dr. Wm. A. Edwards in consultation, and operation being agreed upon, she was admitted to the California Hospital.

#### EXAMINATION.

*During the Day.* The patient is a fairly well nourished child of seven years, mentally bright to the point of precocity, over-restless and inclined to laugh hysterically at inadequate causes. Good tempered, color good, eyes brown. Walks "pigeon-toed," the right foot being more inverted.

Optic discs have clear sharp margins and the only criticism that could be made is that the temporal sides are rather pale, and the veins a trifle large.

Alternating internal strabismus definitely present though slight.

Slight lateral nystagmus to the left seen once.

Pupils normal in size and contour, equal and react well to light and accommodation.

Slight weakness of the right angle of the mouth when at rest and on voluntary movement.

No other muscular weakness discernible, but she is at least as strong in her left hand as her right, although she is right handed.

Sensation everywhere very keen and well localized.

Slight Rombergism is present. Position sense of right arm rather less certain.

Arm co-ordination excellent and pointing normal.

Knee-jerks equal and exaggerated. No ankle clonus, plantar reflexes flexor.

Temperature 98.6. Pulse 94.

*At Night.* Shortly after she lay down and before she was soundly asleep the fits commenced with tonic contraction of the flexors of the body, extension and adduction of the arms, and extension of the knees with flexion of the hips. The emprosthotonus was so great that the head nearly touched the thigh. Shortly after, and coincident with the emprosthotonus there occurred blinking movements of the eyelids, which obscured the former slightly upturned eyes, the right angle of the mouth was drawn clonically to the right, and the formerly extended right wrist was clonically flexed and the convulsion spread to the right arm. Throughout the left arm and both legs remained rigid. During some fits she would awaken whilst the right arm and face were in clonus and ask to have them stopped. Often she awoke to find she was either aphasic or anarthric, and then would be greatly terrified. Usually she wept

\*Read before Los Angeles County Medical Society, April 24, 1919.





Fig. I. Operation 1.



November 7, 1918.

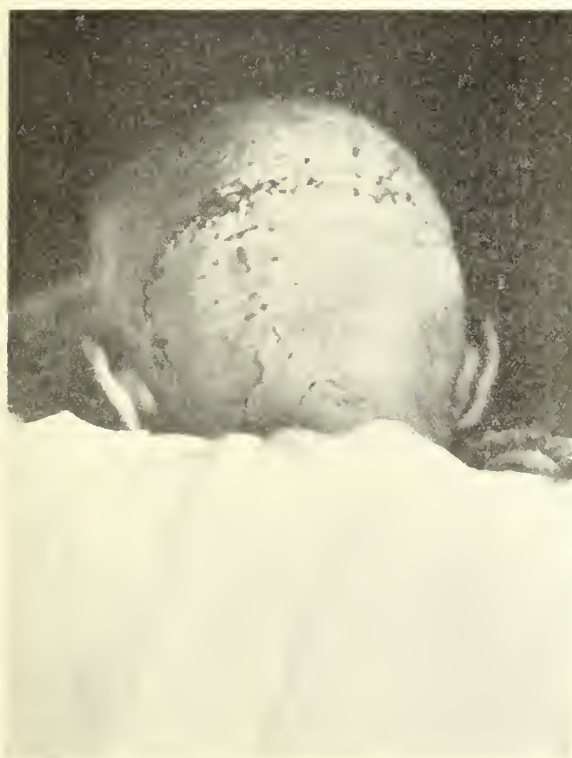


Fig. II. Operation 5.



Fig. III. Operations 2, 3, 4.



L. H. October 7-8-12. Los Angeles, June, 1919

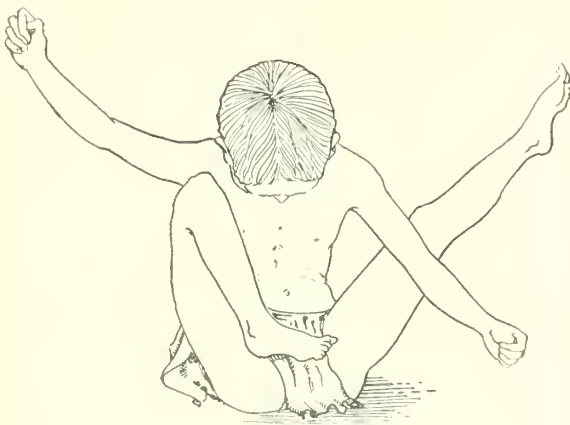


Fig. VI. Attitude in Basal Fit.



Facies in Cortical Fit.



Facies in Basal Fit.

bitterly on coming out of a fit, and was so peevish when spoken to at any time during the night that she seemed like a different personality from her daily self. At night she seemed quite unreasonable even if awake without having had a fit, fighting and striking out.

During the clonus of the right arm and face it is probable that the eyes always jerked to the right as they invariably were deviated to the left immediately the fit was over, moving slowly to the left as if the opposite group of muscles were weak, but during the fit the movements were obscured by the rapid clonus of the eyelids and I did not care to forcibly hold them apart. The right arm was paretic after the fits, and the right mouth drooped more. In less than one per cent. of the fits there was opisthotonus instead of emprosthotonus. These fits occurred every ten minutes or more all through the night, so that no sooner had she fallen asleep than she was awakened in this horrible way, and it is a matter for wonder that she was as bright and healthy during the day as she was.

There were thus three types of fit seen, viz:

Cerebello-medullary (tonic emprosthotonus and tonic rigidity of limbs).

Inter-peduncular (tonic opisthotonus and tonic rigidity of limbs and alarming depression).

Left Rolandic (clonic contractions of right angle of mouth, blinking of eyelids, deviation of eyes to right, and, later, clonic flexion of the recently hyper-extended wrist and arm of the right side).

The fits were still solely nocturnal.

*Treatment.* Frequent doses of hexamethylamine grs. 3 given for four days, which had no effect on the fits.

*First Operation.* October 24th, 1918, at 10 a. m.

The anesthesia was initially too deep and later irregular. The blood-pressure was taken continuously by Dr. A. Zuber at time of incision being 117 and pulse 100.

A bevel-edged osteoplastic flap reflected, and palpation over the left arm and hand centres revealed evident fluid under the dura. The dura was incised at the upper margin of the window and much subarachnoid oedema was evident. At this juncture the blood-pressure fell suddenly from 115 to 80 and the pulse rate increased to 158. Accordingly I tied off the larger branch of the middle meningeal artery by under-running, replaced the bone-scalp flap, leaving a thin flat rubber drain at the postero-superior angle, and returned the patient to bed at 10:55 a. m.

The shock became more profound as fluid drained from the wound, probably forced through the arachnoid by pressure. In spite of this, it seemed best to combat the shock by keeping the head low, bandaging the lower extremities, hypodermics of camphorated oil, and a rectal drip of hot tea and brandy. An anxious time for about twelve hours.

Next day the head was raised, and for the next five nights the condition improved greatly; the fits were fewer and slighter and had lost



their clonic character except for the blinking of the eyelids. There was still tonic emprosthotonus in slighter degree, and the right hand, instead of the former clonus, was tightly clenched with the wrist extended. The eye-balls were now turned upwards at the termination of the attack. Mouth not now drawn to the right. October 25th, 26th and 27th were marked by rather persistent vomiting, and she had anarthria several times after fits. Mentally bright during day. October 28th Cortical clonic movements of the right hand and eyes reappeared during the fits. Basal fits as severe again as ever.

October 29th. Had 20 fits during this night, each about 15 seconds' duration.

October 30th, 9:25 a. m.

*Second Stage of Operation* 1. Blood-pressure at commencement, 98. Pulse 140. Osteoplastic flap re-opened, pried up without difficulty, it being non-adherent to the dura.

The dura was covered with very little fibrin, but sufficient to hide the meningeal vessels completely. The former incision in the dura was easily recognized and the adhesions between the cut edge of the dura and subjacent arachnoid were so slight that it was possible to continue reflection of the dura from the point where it had been formerly interrupted. The dura was very thick and when a flap, comprising the whole exposed area except a thin margin around the edge of the bony defect, had been reflected, the dural flap retracted sufficiently to leave an area of denuded cortex a good inch wide at the sides and above when the dura was laid back upon the bulging brain. Ventricular puncture was not performed advisedly. Marked subarachnoid oedema was visible over this area and the channels that lodge the middle cerebral branches of vessels were filled with a clear yellowish fluid in which the vessels seemed to float. The superficial wall of arachnoid covering this marsh was incised in several places, especially just above the Sylvian point, but the fluid was not milked out—simply allowed to drain away. A network of very fine vessels was encountered in the meshes of this sub-arachnoid bog. The meningeal vessels did not bleed, but fine sutures were passed around both sides of the flap base as a precautionary measure. The cortex was washed with lotio hydrarg: perchlor: 1 in 4000, the dura laid smoothly on the cortex, and the bone-scalp flap replaced leaving an unstuffed thin rubber cigarette drain in the postero-superior angle of the flap, i. e. through the posterior drill-hole. Blood-pressure 94. Pulse 136 (recorded by Dr. A. Zuber) at 9:53 a. m.

This completed the second stage of the Rolandic de-duralizing operation, but it was now clear that a permanent sub-temporal decompression on the opposite (right) side would have to be done at the earliest favorable moment. Largely due to the admirable even, light ether anesthesia by Dr. T. C. Low the patient's condition was excellent after this operation. She was returned to bed and the head kept high.

That night her general condition was good but shortly after going to sleep she had two tonic

contractions of the trunk and mainly affecting the limbs of the left side. Head still flexed during the spasms.

October 31st, 2 a. m. Much trembling of the right hand and arm for about a minute. Patient aware of it and asked to have it stopped. Had seven spasms of the old emprosthotonus type, some with the legs flexed and some with legs extended, and followed by right arm clonus and accompanied by blinking of the eyes, until at 7:45 a. m. she developed anarthria after a fit which frightened her very much.

At 11:30 a. m. I found her in very good condition but complaining of pain in the right great toe. As the drainage tube was lying against the cortex in the neighborhood of the sensory toe area, I at once removed it and this symptom abated in a very short time. She had a very good day but that night following a tonic (basal) spasm during sleep as usual, she had a Jacksonian attack of the right arm with definite coarse clonic contractions of which she was conscious throughout, and asked to have them stopped. Had 5 more fits up to 11:30, then slept on the right side till 1 a. m. when she had a tonic spasm in which both eyes turned upwards. At 1:40 a. m. I discovered that she had a marked right-sided paralysis of the arm and angle of the mouth and was unable to speak, but understood what was said.

4:30 a. m. Right arm somewhat recovered and she speaks plainly.

5:30 a. m. Involuntary micturition during a fit noticed for the first time.

7 a. m. Slept in all about 5 hours in broken spells of 15 minutes to 1½ hours and had four severe and twelve light fits during the night. Temperature, 100.4. Pulse, 136. Respiration, 20.

10 a. m. (Nov. 1st). Wound dressed,—clear fluid escaped. Arm still paralyzed.

2 p. m. Arm somewhat recovered as she has been sitting very vertically, but she looks very ill and the jaw has a tendency to drop. Slight anarthria.

4 p. m. Deep sighing and yawning (cerebello-medullary oedema).

8:58 p. m. *Second Operation.* (Ether by Dr. T. C. Low. Blood-pressure by Dr. A. Zuber was 110 and Pulse 120).

A generous and low-situated sub-temporal decompression performed and the dura opened to the fullest extent. A great excess of fluid escaped from the base of the skull (about a demitasse full). This fluid was in the sub-dural space. The blood-pressure at once rose from 110 to 130 and the pulse frequency dropped from 145 to 130. The dura was left wide open, the vertical separation in the temporal muscle brought together with catgut, the temporal fascia replaced, and a thin unstuffed cigarette drain left under the fascia at the postero-inferior angle. Blood-pressure, 130. Pulse, 130.

The patient was now turned around and while still in the semi-recumbent posture, subjected to a further inspection of the left Rolandic area. The bone-flap was readily lifted and had not appreciably adhered to either the pia-arachnoid or



to the dural flap. The latter was quite flat and smooth but even more shrunken than before and more gray and less congested. The arachnoid was glazed and closely applied to the pia and cortex and there were only slight traces of blood around the margin of the skull defect. On raising the dural flap it was only slightly sticky on its under side (about as much as adhesive when soaked in water). Accordingly, everything was replaced in statu quo and the patient returned to bed at 10:03 p. m. with a blood-pressure of 94 and pulse 148. Head raised.

She slept well from 10:15 until 12:30, when she had a customary emprosthotonus with both arms extended in front of the body. Slept till 1:30 a. m., November 2nd.

November 2nd, 2:25 a. m. Commenced one of the most severe Jacksonian fits I have ever seen affecting the right arm and angle of the mouth. Morphine gr. 1/20 hypodermically and bromide and chloral given per rectum, but the violent contractions only checked by full chloroform narcosis and recurred when it was withdrawn until she was changed from the sitting posture and laid on the left side. The drain was also removed. After this the fits were easily controlled by chloroform.

These fits in lesser degree and combined at times with those of the basal type recurred all day November 2nd and in the intervals the right hand kept up a coarse tremor with the thumb flexed into the palm. The head and eyes were forcibly deviated to the right during the seizures, and she was conscious throughout many that I saw, her attempts to cry out being stifled by the spasms of the mouth and throat. Strychnine poisoning could scarcely ever be more violent than one of these. Amyl nitrite and oxygen seemed of little value but chloroform relieved at once; only in the first attack did it have to be pushed. The amyl nitrite was not tested very thoroughly, however, as I remained with the patient and nullified the risk of leaving chloroform in the nurse's hands, and was ably relieved during this trying time by Dr. A. Zuber of the California Hospital, to whom I am also indebted for the careful blood-pressure records taken during all the operations.

I made the following notes at the times specified at the bedside, and they seem to be highly significant observations in regard to the fluid-pressure cause of these fits:

November 3rd, 8:45 a. m. Patient recumbent. Pure Jacksonian fit, right arm and face (clonic).

4:20 p. m. Still recumbent. Jacksonian clonic fit of the right arm and eyes to the right. Speech impossible, hebétude marked. Temperature, 98. Pulse, 122. Respiration, 20.

5 p. m. Clonic cortical fit of mouth to the right.

5:15 p. m. Still up on back-rest. Tonic basal spasm, both arms extended. No clonic. Mentally clear after it. Pulse, 120; good volume.

5:50 p. m. Still on back-rest. Tonic basal spasm, followed by clonic of angle of mouth and

tongue. Fully conscious of clonus and asks for CHCL<sub>3</sub> which at once arrests the twitching. Speech clearing markedly. Whole attack much milder.

6:23 p. m. Still on back-rest. Ditto, still milder.

This was the last appearance of any clonic fit until November 30th, when they temporarily reappeared under circumstances to be presently described.

She slept well throughout the rest of the night of November 3rd, and the head was kept as high as possible. Next morning (Nov. 4th) there was marked oedema of the face and especially of the right eyelid which was closed by it, and which was welcome as an indication of seepage of fluid from the base of the skull out through the sub-temporal opening. The right arm is rapidly regaining strength. Stitches removed from both sides.

It seems obvious why the cortical fits disappeared when she was raised in bed the afternoon of November 3rd, since they vanished first from the arm, which is highest of the affected centres, and then from the mouth later, until they took on a mild form of what I had previously regarded as cerebello-medullary or basal fits and were entirely tonic in character. The "shifting epilepsy" could only have been caused by fluid as it marched according to posture,—lower the head and the fits became cortical-clonic,—raise the head and they became basal-tonic; and, in shifting they disappeared first from the higher placed centres.

November 8th, 1918. Temperature, 98.8. Pulse, 120. The appetite is now almost ravenous and she is allowed a generous mixed diet. She is picking up with great rapidity. Mentally she is alert, quiet, and observant. Memory and temper good and no trace of the former hysterical laughter nor of any paresis, squint, or pigeon-toed gait. She sews and knits well. She is no longer peevish or uncontrollable as before when awakened at night. She has about twelve slight tonic spasms at night that do not awaken her.

November 17th. She had seven very slight and brief spasms during the night. This is the best night she has had for more than a year. She is not herself aware of having had any "spells" since November 3rd.

November 22nd. She had only six very slight tonic spasms last night that did not awaken her and it was observed that they were more apt to occur if she lay on her left side. She has to be restrained from romping with other children. Temperature, evening 99. Right sub-temporal does not bulge, is soft and pulsates well. Knee-jerks obtainable only by re-inforcement. Urotropin gr. 3, t. d. s.

November 23rd. Temperature at 8 a. m., 99. At 9 a. m. I performed a lumbar puncture under light chloroform narcosis, and with the patient recumbent upon her left side. The needle was inserted through the right (and therefore upper) inter-laminal space between the 4th and 5th lumbar vertebrae. Fluid came out under such

pressure that a continuous stream was projected  $\frac{1}{8}$  inch from the shoulder of the needle and continued at the same pressure after 15 cc. had been collected. In all less than 20 cc. was allowed to escape and it was quite clear and colorless. There was no ill-effect afterwards on this day, although her temperature went to 99.4 and pulse 104, in the evening. It was considered safe to remove this quantity of fluid because the non-hulging condition of the sub-temporal region argued against a hydrocephalus of the ventricles,—a condition which, when present, would render lumbar puncture a dangerous procedure,—and also because the subdural location of the fluid found at the second (the sub-temporal) operation gave the assurance that the intra-thecal pressure was due to a pond under the cerebellum.

November 24th, 1918. Patient vomited last night, probably owing to somewhat injudicious feeding too soon after chloroform. She had only three spasms, so slight that the nurse was doubtful if they occurred at all. Temperature at 8 a. m., 99.2; pulse, 116. Today she complains of slight supra-orbital headache and slight pain in the back and stomach, but there are no physical signs. The knee-jerks are both more brisk than usual and the flexor plantar reflexes more readily obtained. Power and sensation normal. Slept one hour during the afternoon without a trace of spasm. Rather irritable mentally.

November 26th. Patient slept last night from 8 p. m. till 9 p. m. and from 10 p. m. till 5:30 a. m. Throughout the night she only stiffened out three times, each spell lasting a few seconds, and did not awaken her. The spells were described as being like someone stretching themselves, and were probably closely allied to physiological yawning. Temperature, 98.2; pulse, 80.

Alkaline and sugar solutions are being administered both by mouth and rectum to combat the acidosis indicated by the presence of considerable acetone in yesterday's urine, and she has had a comfortable day.

November 27th. There were no spells of any kind last night, and she slept well. This is the first night free from fits since April 1917—probably longer. This morning the sub-temporal region is more collapsed than it has yet been, and the patient's general condition is good. Pulse, 80.

#### REPORT OF SPINAL FLUID.

(Collected Nov. 23rd, under increased pressure.)

Laboratory of Walter V. Brem, M. D., and A. H. Zeiler, M. D.

Cell count—2 mononuclears per 1 c.mm.

Butyric acid test—Negative with 0.2cc. spinal fluid.

Wassermann test—Negative. 1cc. spinal fluid produces no fixation with 1 unit of complement.

November 28th. There were no spells of any kind last night, and she slept well all night—from 8:30 p. m. till 6:45 a. m.—without waking, lying most of the time on the left side. No sedative drugs have been given since November 23rd. Pulse 80 and temperature 98.4.

November 29th. There were no spells last night and she slept well.

November 30th. She recommenced trouble with seven spells. Five light, two bad.

December 1st. Six spells last night (basal type). Discs re-examined and found normal; I could not detect any congestion of the retinal vessels. Urine normal and highly alkaline.

December 2nd. Ten spells last night (basal type).

December 3rd. Eleven ditto.

December 4th. The fits have now a cortical clonic character again, and at 7 a. m. on December 5th I found her comatose with eyes deviated to the right but the limbs at rest, and was informed that these urgent symptoms had been in evidence for the past half hour; also that she had had severe opisthotonus. She soon developed myoclonic shocks of the left arm, hand and face, and the head and eyes were severely jerked to the left. Throughout this attack, which lasted about twenty minutes, and until I had chloroformed her, the right side remained quite passive and still. (It will be remembered that the right side was the one clonically convulsed before the first operation.)

While she was under chloroform I performed a lumbar puncture between the 4th and 5th lumbar spines and the fluid oozed out slowly drop by drop so that at the expiration of about 10 minutes I had only collected 3cc. of clear fluid. It was therefore under greatly reduced pressure. I now put the needle well into the theca between the 3rd and 4th spines but no fluid whatever came. I had felt the needle puncture the dura as usual and the stylet found the needle clear, so that it was evidently a genuine "dry tap." At the same time it was noticeable that the sub-temporal region on the right side was very tense. The opinion was formed that the trouble was due to an acute accession of internal hydrocephalus on account of the valve-like closure of the ventricular outlets, especially the foramen of Majendie. In other words, the insufficient relief of the external hydrocephalus had secondarily brought about a condition of internal hydrocephalus, which in turn displaced the fluid of the cisterna basalis upward and corked up the foramen magnum. It will be remembered that at the previous lumbar puncture the fluid was under high pressure and remained so in the spinal theca after the needle had been withdrawn. It was now discovered, during a semi-lucid period, that she was hemiplegic on the left side; the leg being hardly affected at all. Accordingly she was removed to the California Hospital where I enlarged the sub-temporal decompression, but he it noted that the adhesions between the cortex and the temporal muscle were so firm that it was impossible to separate them without hemorrhage, and it was not further attempted. It was possible, however, to continue the enlarging with rongeurs from the edge of the old opening. Above this decompression an osteo-plastic flap was cut with its base upward, the two sides being made with a Gigli wire saw, which was easily passed up to the drill holes from the large opening below, and on break-



ing the flap upwards an excellent hinge was obtained in the upper parietal region. The dura bulged and pulsation was not observed. Reflection of the dura revealed considerable general pressure and much sub-arachnoid fluid which flowed away freely after the arachnoid had been opened at the lower part of the flap and just above the old sub-temporal adhesions. The dura was left open being laid back upon the brain under the osteoplastic flap, but in the temporal region a large strip of dura was brought through the temporal muscle and stitched to the deep aspect of the skin flap, in the hope that the drainage be thereby increased. Two rubber cigarette drains (unstuffed) were left in contact with the temporal cortex and brought out externally.

Blood-pressure (recorded by Dr. A. Zuber) was 105 systolic at the commencement and at the end of the operation and the pulse 120 to 140. Anæsthetist, Dr. T. C. Low. Assistant, Dr. S. T. Johnson, interne of the California Hospital.

December 5th. There was no vomiting after the operation and consciousness soon regained. Her mental condition was at once excellent in contrast to the pre-operative coma of the early morning. Immediate and profuse seepage of cerebro-spinal fluid necessitated frequent change of outer dressings during the night. There were no fits of any kind this night and she slept well.

December 6th. This morning, while sitting up, she had a severe grand mal attack lasting a minute and a half. This ceased when she was placed recumbent and was not repeated during the day as she was kept in that position. Dressing completely changed at noon and the drains removed. There has been much drainage and she complains of some headache, probably due to loss of fluid. She remained in excellent condition (lying down) and slept from 6 p. m. till 8:40 p. m. when she had a spasm which the nurse did not describe in detail.

December 7th, 12:30 a. m. Spasm lasting 2 minutes, after which she slept until 4:10 a. m. when she had another. At 5:25 a. m. while still lying low she had another fit which was clearly cortical-clonic in character, the convulsions of the mouth continuing after she awakened and she tried to conceal the fact from the nurse by covering her mouth with a handkerchief. At this juncture I gave instructions to raise her to a sitting posture, after which the twitching promptly ceased and the speech, which had been markedly affected for more than an hour, returned and she lost the dysphagia. It being now more obvious than ever that we had to maintain a balance between the fluid accumulating at the base and that collecting at the vertex, according to symptoms I left standing instructions with the nurse as follows: "If, after the fit, the color is bad and there are signs of collapse, place her recumbent; but if the color is good and pulse good but the speech thick and mentality dulled, prop her up." This had a good effect and at 10 a. m. she was as bright as usual.

December 7th. (*Fourth operation.*) Somnoform

and ether by Dr. T. C. Low. Blood-pressure recorded by Dr. A. Zuber, 108; pulse, 145. Assistant, Dr. S. T. Johnson.

A  $\frac{1}{4}$  inch trephine hole made over the posterior end of the right superior temporo-sphenoidal convolution and another small hole made with the perforator of a Hudson drill about half an inch lower. Passing a protector between the bone and the dura, this second small hole was reamed out to exactly fit the central part of the female half of the wide-bore flanged gold tube (14 carat) shown in the radiograms, Figs. 5 and 6, kindly taken for me by Dr. George Malsbury of the California Hospital. The dura was now cut out in a circle as large as the drill-hole and the female half of the tube passed from the sub-arachnoid space through the dura and the drill-hole in the bone and the male half of the tube screwed home so that the bone and dura were clamped not too tightly between the two flanges. In view of future growth there was enough space allowed to sew the periosteum and some loose tissue between the male (external) flange and the outer table of the skull. During the insertion of the female or inner half of the tube, the brain was carefully pressed aside with a thin flat retractor and the precaution was taken to attach a fine thread through a hole in the flange in case the tube slipped during insertion, which thread was removed as soon as the tube was well home. The whole procedure was rendered more difficult by the intracerebral pressure that existed at this time, but as this was not very excessive I did not tap the ventricle which is a manœuvre to which I have a deeply rooted objection, preferring puncture of the corpus callosum when driven to it. Moreover, I was working on the principle that if the external hydrocephalus was permanently relieved the internal hydrops could take care of itself, as there was reason to believe that the iter and foramen of Majendie were patent as long as the fluid was being absorbed with sufficient rapidity external to them. The patient was returned to bed at 12 noon with a blood-pressure of 116 and pulse 156, good volume. Diastolic pressure, 78.

After this operation the patient has never had another cortical-clonic fit with one doubtful exception on December 17th. The scalp healed promptly over the tube, which evidently did its work well in combination with the dural valve in the sub-temporal region, as fluid was evident in the loose cellular tissue of the scalp at the time of the fifth operation (sub-occipital) to be subsequently described and marked oedema of the right side of the face was periodically visible as late as January 10th, 1919.

There were no more fits of any kind either day or night until December 12th and during these five days of freedom and absorption the temperature was normal in the mornings and averaged 99.6 in the evenings, pulse 110. The decompression did not bulge. She had one attack of nose-bleeding.

On December 12th at 3:40 a. m. while sleeping

and fairly low on the pillows she had a slight tonic basal spasm, and at 10 a. m. her articulation was slightly affected but mentality bright as usual. Speech cleared up soon after she went out in the wheel chair.

December 13th. Had a good night and very bright and cheerful. Nose bled slightly.

December 14th. Had a good night and no more spasms. Radiograms taken.

December 15th. Had a good night though slightly more restless. Bright all day.

December 16th. Had a slight spasm at 7:30 a. m. and at 9:30 p. m.

December 17th. Has had four more spasms. Is rather excitable today and the right side of the mouth looks a little paretic. (A new nurse says that the right angle of the mouth was jerking in one of the fits.) At 5:35 p. m. she had a purely basal tonic spasm in my presence while awake and lying low in the bed lasting 35 seconds. In this the head approximated the thighs as in the initial basal element of her pre-operative fits. At 5:45 p. m. lumbar puncture revealed fluid under such pressure that it ran out in a continuous stream but not under such high pressure as on November 23rd. (It will be remembered that on December 5th the spinal theca was practically dry.) After 15 cc. had been collected, the pressure was reduced to a quick drip and the needle withdrawn. During this night she had 8 purely basal spasms. Temperature 99.2 in the p. m. as usual since the operations.

December 18th. The lumbar puncture seems to have brought about an exacerbation of basal pressure as she had nine fits during this day of identical character, of which I saw one. On this occasion she was kneeling on the floor playing when, without a sound, the head was drawn down on to the chest, the arms were half abducted with the elbows extended, the right wrist extended with fingers flexed, the left wrist flexed with fingers flexed, both thighs flexed, the left knee extended, and the right knee flexed (Fig. 6). This attitude was maintained with the greatest rigidity for 45 seconds, after which she relaxed and appeared immediately conscious, studying the face of a visitor who was present, evidently anxious that the latter did not notice anything unusual, as the child later expressed this hope. During this attack the eyes were directed upward throughout, the eyelids blinked not rapidly, and the mouth was evenly puckered. The above described position of the arms and hands has been constant in all basal fits since the first deduralizing operation on October 30th, except that just after that operation the right arm would be more elevated at the shoulder. Before the first operation, both arms were brought forward in front of the body during the basal element of the attack.

An opportunity having been thus vouchsafed me to observe an unadulterated basal fit during the daytime, it was evident that the patient's mentality was quite unaffected by them, whereas when she

used to have the cortical-clonic fits, she recovered with mental clouding and at times aphasia, passing on to irritability and excitement. This is what one would expect. Monoparesis also often followed the cortical fits.

Free purgation, hexamethylamine, and hot sweat baths have been kept up during the past week.

Throughout the night of December 18th the patient had basal tonic spasms every 20 minutes, most of which were followed by a general tremor during and for a few seconds after relaxation.

December 19th, 3:45 p. m. Readmitted to the California Hospital. She had thirteen basal spasms up to 9 a. m., December 20th, and at 9:07 a. m. her blood-pressure was 104 systolic and pulse frequency 110 (recorded by Dr. Zuber throughout operation).

9:19 a. m. Operation. Somnoform and ether by Dr. T. C. Low. Assistant, Dr. S. T. Johnson. Blood-pressure at the time of incision 104, pulse 126.

The skin flaps of Cushing's crossbow method to expose both cerebellar hemispheres were turned down with minimal bleeding, but when the patient, who was lying in the semi-prone position, was turned a little further on to the right side to permit easier reflexion of the muscles, the pulse disappeared at the wrist. Accordingly, the skin flaps were replaced and covered with a dressing, the head lowered with the patient on her back, some dark blood let out of the median-basilic vein and some warm normal saline infused into the median-cephalic vein. The collapse, which was probably due to a cerebellar fit under the anæsthetic, occurred at 9:36 a. m. and by 10:20 a. m. the operation could be resumed with the patient's blood-pressure 98 systolic, 50 diastolic, pulse 110.

It may be remarked at this time that the cellular tissue of the scalp over the occiput was found on incision to contain considerable fluid from drainage out of the openings above the tentorium, previously described.

The patient being placed now in an almost upright sitting posture, the muscle flaps were turned down and out on both sides and a trephine hole made to the left of the occipital sinuses and just above the margin of the foramen magnum. Emissaries were immediately controlled with wax. The bone was now further removed with rongeurs and the de-Vilbiss forceps according to the convenience of the situation until the posterior half of the foramen magnum had been taken away, the dura over the medulla, fourth ventricle, and occipital sinuses fully exposed, and both cerebellar hemispheres denuded of bone within the limits of the superior curved line. The dura was more adherent to the bone than usual and in places appeared thickened. Pulsation was not readily felt or seen and upon incising the dura the arachnoid was found to be adherent to its deep aspect and a large amount of fluid between the dura-arachnoid and the cerebellar substance obscured the latter from view after the dura had been incised down to the adherent arachnoid, even



in the highest part of the wound,—a bluish thin-walled sac of fluid coming into view. Upon opening this much fluid gushed out.

The blood-pressure records are as follows:

- 10:35 a. m. Before opening skull: 92 syst., 50 diast., pulse 130.
- 10:39 a. m. After opening skull: 100 syst., 50 diast., pulse 102.
- 10:49 a. m. Bone removal complete: 92 syst., 58 diast., pulse 140.
- 10:51 a. m. Dura reflected: 96 syst., 50 diast., pulse 120.
- 11:15 a. m. Subsequent manipulations: 84 (lowest), 50 diast., pulse 124.
- 11:18 a. m. Wound closed: 96 syst., 52 diast., pulse 140.

The dura was fully opened over both cerebellar hemispheres, leaving intact that over the occipital sinuses, since veins are needed to carry off the fluid and a reasonably certain diagnosis obviated the need for extensive exploration. Also the dura covering the fourth ventricle was not incised, as it was felt that the posterior medullary velum would, in this case, allow the discharge of the ventricle when its lateral supports had been removed. Accordingly, a large flap of dura-arachnoid was turned upwards on the left side and brought through a slit in the upper fringe of complexus muscle and stitched to the fascia covering the occiput just above. Upon attempting to do the same thing on the right side by turning a dural flap outwards, it was found that the dura here was so friable that it would not hold a stitch, and so, time pressing, the rest of the dura was everywhere left wide open as it was, and the muscles accurately brought together by iodized catgut suture, followed by the skin flaps without drainage.

The condition that had been found was, therefore, a posterior basic meningitis, evidenced by thickened dura, adherent arachnoid, excessive sub-arachnoid fluid, and fine strands and adventitious vessels bridging across between the pia and arachnoid and dura. No tubercles were seen.

#### *Post-operative Course.*

12:20 p. m. Pulse 164, fair volume. Had a slight basal spasm. Oxygen 5 minutes. Head propped high.

1 p. m. Pulse 136, quality improved. Patient conscious, talking brightly.

1:20 p. m. Emesis of brown fluid.

1:35 p. m. Basal spasm, more severe. Head still raised.

1:40 p. m. Head lowered. Sleeping with Murphy drip still being retained (glucose 5% and strong tea).

2:45 p. m. Stomach washed out by drinking two glasses of warm water.

3:30 p. m. Sleeping.

5 p. m. Slight basal spasm.

5:30 p. m. More severe spasm followed by a coarse tremor of trunk (basal).

6:30 p. m. More severe basal spasm lasting 40 seconds. Temperature, 98.8; pulse, 140.

8:35 p. m. Head raised after two more basal spasms. Respirations, 26; pulse, 144.

10:30 p. m. Resp., 35; pulse, 150.

11:30 p. m. Restless.

12 midnight. Basal spasm. Head still raised.

1 a. m., December 21st. Pulse 160, irregular. Complaint of pain in the head.

5 a. m. Temperature, 100.4; pulse, 152. Has slept periodically for about 10 minutes at a time.

8:35 a. m. Basal spasm during sleep with head still raised and resting on the right side.

9:35 a. m. Has slept since 8:10 a. m. Temperature, 99.3.

11:45 a. m. Dressing changed. Wound very clean; no sign of hemorrhage. The patient was kept up on the back-rest and turned at intervals from one side to the other, having no more spasms during the afternoon or night of December 21st although at 5 p. m. the head had to be lowered owing to a severe general headache, which quickly disappeared thereafter, and was evidently due to a too rapid loss of cerebro-spinal fluid. Bloodpressure at this time was 100 syst. She now slept well with the head on one pillow and therefore quite low until she became restless at midnight. Temperature, 100; pulse, 144, and full; resp., 20.

December 22nd, 1 a. m. Basal spasm.

3:30 a. m. Head elevated more.

5:30 a. m. Complaint of headache.

6:00 a. m. Head lowered. Complaint of teeth being sore (pons on base pressure). Patient turned frequently from side to side and remained free from spasms until 1:45 p. m., when she had a slight basal spasm when the head was semi-low.

3 p. m. Knee-jerks unobtainable, no ankle clonus, plantar reflexes both brisk and flexor. Temperature, 100.8; pulse 158. Hexamethyamine recommenced.

There have never been any more fits or spasms of any kind since that which occurred at 1:45 p. m. on December 22nd in spite of the fact that she has since then slept fully recumbent with one pillow only. All stitches were removed on December 23rd.

On December 26th all medicines were stopped except mild laxatives and an iron tonic.

December 28th I made a neurological examination and found that the knee-jerks had returned and were equal and moderately exaggerated, no ankle clonus, plantar reflexes flexor, no nystagmus or strabismus (formerly present), pupils equal and normal and reacted briskly to light and accommodation, no ataxy, pointing good, power and muscular sense and stereognosis good, sensation normal everywhere (except partial anæsthesia in portions of the scalp due to operations).

The mental state of the patient has undergone a great change for the better compared with the pre-operative days. During the day she is quiet



and observant without a trace of the former high-pitched, restless demeanor and hysterical laughter. She is in fact a critical stoic with a keen interest in all around her and a good memory. Also she has an enormous appetite and is rapidly gaining flesh. (Her weight after the last operation was 51 pounds.) Moreover, when she happens to awaken in the night she is always good-tempered and exhibits none of the unreasonable fretfulness and hebetude of former times.

The photographs of the suboccipital incisions (Fig. 4) were taken on December 29th. On December 31st the sub-temporal region presented a slight but decided hernia with good pulsation and soft and easily compressible. The suboccipital edema was less on this day. The patient writes well and has been drawing figures of people and houses with an artistic skill above the average of her age. Also she has cut out figures from a magazine with scissors, following wisps of hair and the like with such accuracy as to furnish the best proof of a perfect co-ordination.

January 5th, 1919. She slept uninterruptedly last night from 8 p. m. till 8 a. m. These long nights are now the rule, evidently a determination on the part of nature to make amends for the previous two years in which she did not have a single good night free from fits. The sub-temporal hernia was a little more obvious this day but soft and compressible. Also there was still considerable edema of the cheeks that looked like fat as the eyelids were but slightly involved. She still had a temperature of about 99.4 in the evenings, which can be attributed to the absorption of the meningitic fluid of the base. No vertigo when walking, as occurred three days ago. Weight, 58 pounds.

From this time on the progress has been uneventful, and she is by far the brightest child of her age that I have ever known.

July 1st, 1919. Weight, 67½ pounds. Condition still perfect and she can endure long trips into the mountains without the former rise of evening temperature. The scalp is freely movable over the gold tube which has given no trouble whatever.

Epilepsy might be designated a "famine-riot of the cortical cells," and it is my belief that the foregoing case was caused by a septic thrombus in the tonsillar branch of the ascending pharyngeal artery being dislodged into the posterior meningeal branch of the same artery.

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## QUESTION OF IMPROVING BUSINESS METHODS AND INCREASE OF FEES.\*

By P. A. JORDAN, M. D., San Jose, Cal.

Physicians as a class are untrained in business, and the physician's professional work is usually carried on in an unbusiness-like manner. His business methods may be improved by following the succeeding suggestions.

The arrangement of the physician's office is often not of the best. A pleasing color scheme should be followed out throughout his office rooms. The reception room should correspond as nearly as possible to a pleasant parlor. It should be airy and light; it should be freed from the antiquated pictures calling forth medical or surgical ideas. The dear old bewhiskered doctor looking sadly at the dying child should be removed and replaced with something more cheerful; the picture of the physician racing with the stork, and the picture of the dead body being dissected should likewise be removed and replaced with some cheerful scene or painting. The furniture should be comfortable, and as luxurious as the situation will allow. One patient told me recently that she would not return to Dr. Blank's office any more because his furniture was so old, so badly arranged, and his rooms so untidy that she feared his knowledge and treatments would partake of the same character.

Having secured a good plant with which to carry on his business, it remains for the physician to sell his services to his patrons as truly as does the clerk in the department store. A well-trained secretary should greet each patient promptly and pleasantly. The patient should then be skillfully examined, leading to a thorough diagnosis. Then the physician should speak to the patient plainly and convincingly, explaining his ailment, offering the required treatment or surgery, in tones and terms reassuring to the patient. At this point the patient will ask: "Doctor, what is this going to cost?"—and here the average physician makes his great point of failure by pushing aside this question until another time. The patient now somewhat appreciates the seriousness of his ailment and would like to know whether or not he is going to be able financially to meet the situation. The successful doctor at this juncture will answer, "I don't know, Mr. Blank, what this is going to cost, but we will sit down and talk it over." Patient and doctor, or better, a wide-awake secretary are then seated in a private

\* Read before San Francisco County Medical Society, September, 1919.

room. The doctor then will state: "This operation and the corresponding treatment ordinarily costs so much. Whether you should pay this amount, or more, or less, we will now determine." The patient will then be asked about his running expenses; the amount of rent he pays, or whether or not he owns his home; the number of people dependent upon him; his sources of income, wages, or income from properties. If the patient is truly honest, as the doctor is, and will answer these questions fairly, the honest doctor will then place the price of the work to be performed entirely within the range of the patient's ability to pay. As most of our patients are laboring people with mediocre incomes, our fees are usually arranged accordingly, and seldom, if ever, can we charge above the ordinary fee schedule. In case of wealthy patients where responsibility rests far heavier upon the physician, the fee should be raised in proportion.

I think one of the most important points in the business life of the physician, and the one which is most often neglected, is a heart to heart talk with the patient at the time of his first visit. It is my custom to have a thorough business understanding with each patient at the end of the very first office visit. This can only be neglected or overlooked in emergency cases, and, as specialists, we have but few of these, as most of our operations and treatments are elective with the patient. Having received the patient promptly and pleasantly; having examined him carefully, and having talked to him convincingly about his needs, I then ask him if he wishes me to continue treatment, and tell him that I expect him to pay for the first visit and that succeeding visits or surgical procedure will cost him a given amount, and cash should accompany the work.

This heart to heart talk is good for patient and physician. It gives the patient an immediate understanding of the doctor's knowledge of his case and of his wishes as to the mode of conducting same. The patient knows the amount for which he is to be obligated, and can plan accordingly, instead of breathlessly going on into the work, wondering and fearing what sort of a bill is going to be rendered some time in the future. Furthermore, the patient immediately becomes the doctor's friend, because he is willing to abide by the doctor's wishes, or he immediately decides not to go any further and plainly says so, thus departing in a friendly manner. In the ordinary routine he would receive the treatments, the operation and after-care, and when he later received his bill,—not having planned on its payment,—he reluctantly pays a portion of it, drags out the balance into months of smaller payments, and feels all the time that he is paying for a dead horse. By following the business methods here suggested malpractice suits are eliminated; also the professional dead-beat is eliminated at the first visit. The physician is thus saved a great amount of work to be unpaid for, which time he can give to study or recreation. Numerous bad bills are thus not contracted, and the physician is freed from worry, time and stamps

that these entail. Furthermore, it is best in cases of surgical operations to collect the full fees for same in advance. This has been my custom for a term of years, and I find it entirely plausible and best. It is nearly always possible to do this. I explain to them that they pay their landlord his rent in advance; gas, electricity and water they pay for monthly, and on failure to do so these supplies are cut off. Groceries, milk and meat must be paid for every thirty days; the tailor, hatter and shoeman send their goods C. O. D.; street car fare is paid as one enters; the railroad and Pullman Company are paid before we even approach the train; the hospital is paid a week in advance; drugs and optical goods are all cash. In the ordinary routine of life the doctor bill is paid after all other bills have been paid,—some time in the convenient future. The patient usually gets the point, and says, "Very well, Doctor, your services are as valuable to me as those of any of the commodities named. Your expenses are high; you are expected to pay cash for everything you get; you cannot run your business without cash. I have not enough money on hand, Doctor, to pay this bill, and will have to borrow; but if I must owe somebody for this work it is only fair that I owe a bank, and not owe you."

I also find that patients are pleased to pay for their visits daily as they come. They prefer to do this after an explanation of this business method. They are then not obligated to me after leaving; their doctor bill is paid, and no large amount stands against them to worry.

Another class of patients is often met with and should be educated: An operation is to cost \$100; the fee is to be paid in advance. The patient, not having understood the situation, says, "Doctor, I will pay you \$50 after the operation is performed, and \$50 more in six weeks." He is really saying in his heart, "I will have the doctor perform this operation, but I will not pay him in full until I decide that the operation has been a success." To this patient I always answer, "If you wish me to perform this operation you must have implicit confidence in my work before we begin, or I will not undertake the work. If you have implicit confidence in me you will therefore be willing to pay before the operation, and you must not expect to be the judge of surgical success. Your doctor alone can judge the success of this work."

Answering the question of increasing our fees, I think we should use great discretion here, in these turbulent times. We should not raise our fees sufficiently to approach the point of profiteering. But more important than raising our fees, I think, is the collecting of the fees we are already charging. If the foregoing plan is followed out systematically by each physician the uncollected fees will all be collected,—which will increase the income of each physician anywhere from ten to fifty per cent. I have found it feasible to raise my fees in the last six months from ten to twenty per cent. in suitable cases. This, in view of the added cost of office help, cost of instruments, fixtures, drugs and optical goods. Where the pa-



tient's income has been increased in proportion to the high cost of living, I find it reasonable and entirely possible to charge slightly larger surgical fees; but to sum up, it matters little what our fee schedule shall say unless we conduct our medical work in a business-like manner. For generations our patients have been trained wrongly, and are still acting on training belonging to past ages. Most physicians die poor, leaving their widows and children only poverty and debt to show for a long life of hard work and excellent service given to others. If we will receive our patients promptly, examine them thoroughly, speak to them convincingly, and as surely collect from them what they owe us, we need not worry about the raising of our fee schedule.

### A LOCAL STUDY OF TRACHOMA.\*

By HUGO A. KIEFER, M. D., Los Angeles.

The steady increase of this disease in my personal practice during the past fifteen years has led to the questions (1) whence does most of it come, (2) what is the best method of treating it during its active stages, and (3) what measures are best adapted to controlling that which is among us, and of preventing the influx of more cases?

Trachoma has been called "The Egyptian Disease" because it was supposed to have originated in Egypt. A very interesting story was worked out as to how it was brought from Egypt by Napoleon's legions, how it spread all over Europe and Western Asia, and how from there it found its way to other parts of the civilized world, among those countries being our own America. But the investigations of recent years show that Trachoma is found among an extremely large proportion of our American Indians, and that it evidently existed among them endemically for ages. In fact it seems that our noble red men could safely lay claim to having served as host to this malady before the birth of the Pharaohs. In some localities of the United States, as for instance in certain isolated mountain communities of Kentucky, the disease became so rampant that it was necessary for the government to adopt measures to control its dread ravages. Are we in this section of the country in any danger of a similar epidemic?

While no race, color, age nor sex is immune, it is open to question whether one race is more susceptible to infection than another. It would seem, from a study made among different races, that environment is a far greater potentiality than race susceptibility. For instance, in the smitten districts of Kentucky most of the patients were of the white race, and natives. The Egyptians and colored races are both widely affected in Egypt. In Russia, while all classes are affected, it is probably more frequent among the Jews. In this section of our own State, while it is found among all nationalities, it is unquestionably

more frequent among the Japanese and the Russian Jews. Why then, in a mixed community like ours, should we find more infected individuals among certain races than among others, if there is not a special racial susceptibility? The answer is environment,—methods of housing, feeding, and living in general. And just such a mixed community as this affords excellent opportunities for studying this problem.

While, as has been said, Trachoma is found in hosts of all social degrees, by far the greater number of cases are afforded by those in the lower walks of life, who are housed in close quarters with poor ventilation and little sunshine, whose houses are littered with filth and squalor, and whose bodies have to find subsistence on poorly prepared and innutritious food. Just such conditions as these afford the usual environment for a large proportion of the Japanese and Russians of this community, the two races which present the greatest number of Trachoma infected patients in Southern California. And again we find that the most of these patients are immigrants who sprung from poverty-smitten districts in their own land, where this disease flourishes. Many of these patients present Trachoma which evidences its existence in any particular patient as of a longer standing period than the period of his residence in this country, showing that many of them have slipped by the immigration inspectors without discovery.

Communications addressed to many of the ophthalmologists in Los Angeles, Santa Barbara, Riverside, Redlands, San Bernardino, and San Diego brought a very liberal response, and I am happy to be able to quote, in a general way, the opinions of the men who were kind enough to offer their assistance. These gentlemen are especially entitled to gratitude on the part of the writer of this paper for consenting to answer his questions when they had no accurate statistics at hand, and had to rely on their memory and judgment. The writer likewise did not have his material in such shape as to be able to quote exact figures, and consequently he felt some trepidation in offering any figures for such a subject as this.

First question:—Have you found Trachoma on the increase in Southern California during the past ten years? If so, how much more prevalent is it at present than it was ten years ago; that is, how many cases will you meet with now to every one that presented itself formerly?

Ten answers amounted to "No, no relative increase."

Another gave it as his opinion that he meets with five to ten cases now, where he had one formerly.

A report on conditions at the Sherman Institute shows that "there has been a decided lessening in the number of such cases coming to the school during the last year or two, which is probably due to the fact that the government is doing more or less intensive Trachoma work on the reservations and in the reservation schools." Here

\* Read before the Forty-eighth Annual Meeting of the Medical Society of the State of California, Santa Barbara, April 1919.



they make use of expression and daily application of Copper Sulphate.

In my own experience based on my private practice and on a clinical experience extending from 1900 to 1913, I should say that I see five cases in private practice where I used to see one, and that toward the end of my clinical service I would see nearly ten cases where I saw one in 1900, relatively speaking. These figures seem to correspond closely with those of Dr. Thomas J. McCoy, whom I quoted above, and who, I believe, has had a large clinical experience. It is this increase in the amount of Trachoma in my own practice, which corresponds to the expressions of others with whom I have consulted, who are not quoted here, that led me to undertake this investigation.

Second question:—What is approximately the order of frequency of this disease among (1) native born Americans, (2) immigrants? Among (a) native white Americans, (b) native colored Americans? Relative frequency among those of foreign birth (simply designate first, second, third, etc.).

Japanese,	English,
Chinese,	German,
Russian,	Scandinavian,
Italian,	Spanish,
French,	Other races.

This question was quite variously answered, and showed that the individual doctor's experience depended on his geographical location, or rather upon the type of population found in the locality in which he practiced. For instance, in Riverside the greater proportion of Trachoma was found among the Indians, there being a large Indian school in that vicinity, and Trachoma is known to be exceedingly common among Indians as a race. In Santa Barbara and Pomona, where there is a large Spanish population, it was found mostly among the Spanish, but as the Spanish population is far outnumbered by the lighter races, it must be concluded that there is a relatively greater amount of Trachoma among the Spanish. In Pasadena the disease was found mostly among the native Americans and Japanese. In Long Beach the natives and immigrants strove for about equal honors, and the Japanese here constitute a considerable part of the population.

In Los Angeles there seems to be quite a decided difference of opinion as to whether the disease is most common among native Americans or immigrants. Very little mention is made of negroes either in this city or any other city included in this paper. One eminent Los Angeles clinician gives as his opinion that most cases are found first among the Russians, second among the Scandinavians, and third among the Spanish.

My own opinion is that by far the greater number of cases are found among the immigrants, the first of these being the Japanese, and the second the Russians, the rest of the cases being very much scattered among other nationalities. I have seen exceedingly little of it among negroes, less than among any other race, probably because

I have had very few negro patients.

Third question:—What do you consider the most effectual local treatment, both surgical and medical, for uncomplicated lid Trachoma, both recent and chronic cases, which have not reached the stage of extensive atrophy and cicatrization?

About seventy-five per cent. of the doctors prefer expression following a vigorous curettage or scarification, and the immediate application of bichloride of mercury 1-500 solution or a little weaker; this to be followed later by local application of silver nitrate or of the copper sulphate stick as a medicinal application. Silver seems to be generally preferred in recent cases and where there is considerable secretion; copper sulphate being recommended mostly for chronic cases, and cases where there is much thickening and hypertrophy of the conjunctiva; very little mention is made of sandpapering, or of the use of jequiritol; or of the X-ray or leucodescent light.

Fourth question:—What measures would you advocate for the control of this disease, such as will prevent its spread from those in our community who are already afflicted, and the prohibition of introduction of new cases from elsewhere?

The following are some of the answers submitted to this question:

"Isolation. Prohibition of entrance to our community."

"Education first as to its contagion. Second, absolute prohibition of any child afflicted attending public schools. Third, compulsory medical or surgical treatment and quarantine of all cases."

"Preventive measures would include public education, and especially instruction of infected persons regarding asepsis. Isolation as far as practicable; non-use of roller or common towels, etc.; and strict examination and control of immigrants."

"Compulsory treatment. Exclusion if not treated."

".....careful examination of all children and others coming into the vicinity (if it were possible) and placing them under intelligent care, and keeping them there..... Up to the present we have no domestic quarantine laws which could be invoked to make this possible. I think the difficult experience in the late Influenza epidemic by the health authorities demonstrates this."

"Isolation."

Personal conclusions:—Trachoma is steadily increasing in this community at a moderate pace. While it has not reached alarming proportions, a more rigid regime should be adopted to check its advance. Inasmuch as the disease is found more abundantly among immigrants and among the poor, who live closely housed in rookeries and under poor hygienic conditions, particular attention should be paid to these two phases by the federal and municipal authorities. In pursuance thereof, I believe we should recommend a stricter inspection of all immigrants by the federal authorities, with recommendation to retain all immigrants in strict quarantine till all

traces of the disease have disappeared, or to refuse admission if they will not accede entirely to the requirements of the law. To the municipal authorities we should recommend making Trachoma a reportable disease; to require the patient to take such treatment as is deemed necessary; to place each patient under partial quarantine, such as would keep him from intimate contact with others; and to enforce a thorough cleaning up of quarters, and sanitary regulations for those living there, where the disease is prevalent.

I wish herewith to express my thanks to the gentlemen who so kindly responded with their help in furnishing the details of this paper.

### PRESENT PROBLEMS IN APPENDICITIS\*

By W. L. HUGGINS, M. D., F. A. C. S., Los Angeles.

The two problems which the writer wishes to present for your solution are: First, why do we still have such a high mortality in acute appendicitis? Second, and almost as important, why such a prolonged morbidity in this disease whose pathology, diagnosis and treatment is thought to be so thoroughly understood? Kelly, in 1910, writing of this "most common abdominal affection occurring in young individuals," states "the surgical treatment is a development of the last twenty years and its evolution may well be regarded as the most notable achievement of modern surgery." Yet Murphy in 1915 found the general hospital mortality to be a little over ten per cent., and in speaking on the subject said "Procrastination should be given as the cause of death." At a recent surgical meeting one hospital was mentioned as having an eighteen per cent. mortality. The delayed diagnosis and the bizarre forms of treatment in many cases cause one to feel that the profession as a whole is not on the alert.

With the abatement of the furore for calling even the slightest evidence of abdominal distress appendicitis, has the pendulum swung so far backward that we are again stumbling over the bog of perityphilitis and the hypodermic needle to find pus? Or are we so smug and self-satisfied that, in spite of the brilliant teaching of the leaders in abdominal surgery, we fail to make a careful, analytical examination of the history and of the patient, and to apply the proper remedy?

The clinical history is of the greatest value, and especially the chronological order of the symptoms as they appear. Even when the patient unconsciously relates them as if repeating dictation we are blind to their significance. If not clearly stated a few well directed questions and a slight mental dissection of the answers will give a reasonably clear clinical picture. Pain is present first, last, and all the time, except during "the deceitful calm" of rupture, when the cessation is too rapid to be mistaken for the subsiding of an

acute inflammation. The pain followed, but not preceded, by nausea and vomiting, at first general, gradually becoming localized over the base of the appendix and also at the site of the lesion. The pulse and temperature, although exceedingly variable, show an increase at some stage of the disease in practically every case.

Then follows the all-important abdominal rigidity and tenderness, corresponding to the location of the appendix and the extent of peritoneal involvement. Johnson says that a rigid abdomen cannot be catarrhal appendicitis (a much misused term), and emphasizes rigidity as an indication for immediate operation. To obtain accurate information both hands must be well educated to feel and to see. Too much stress cannot be placed on the matter of palpation, which should not be "diagnostic massage," as it is of the greatest value as a determining factor in many cases. Also to be noticed is the position of the patient reclining to the right with the leg drawn up. Turning him to the left or extending the leg frequently causes an increase in the pain.

Emesis is of short duration, and if continued indicates an extension of the peritoneal inflammation. Occasionally there is an early diarrhoea but usually constipation, unless some over-zealous individual has administered strong cathartics and many and varied enemata to relieve the sufferer. Percussion, although claimed by some to be especially valuable in retrocecal conditions, has been found to be of little service.

The blood count, while by no means absolute, I believe occupies an important place in arriving at a decision, and as an index of how the battle is going with that particular patient. A leucocyte count of ten to thirty thousand and increasing at each four to six-hour interval strongly indicates appendicitis where certain other fairly definite conditions can be eliminated. The percentage of polynuclears is also of decided value. When both are low a mild infection is indicated. When both are high a severe infection with good resistance. While a low leucocytosis and a high polynuclear percentage indicates a severe infection with poor resistance.

We have had but three cases without a leucocytosis. In one of these the appendix was sharply constricted at its base and completely gangrenous, without perforation or extension of the inflammation to other tissues. In another case, perhaps worth mentioning, it was thought at first to be ptomaine poisoning and later intestinal obstruction. At operation it was found to be one of gangrenous ruptured appendix with general peritonitis. Here a blood count would undoubtedly have resulted in early intervention and the probable saving of a life.

Coming to the pitfalls of diagnosis, the deepest of these is carelessness both in obtaining a chronological history and the failure to make and interpret a thorough but gentle examination. Next, the almost criminal administration of opium, calomel and castor oil, along with purgative enemata. Shall we never learn not to employ these friends

\* Read before the Forty-eighth Annual Meeting of the Medical Society of the State of California, Santa Barbara, April 1919.



of the undertaker in acute abdominal conditions? If necessary to do something treat the patient with placebos and masterful inactivity until we or our confreres arrive at a reasonable diagnosis. Deaver in reporting a series of 259 cases says that 30.5 per cent. had been purged before admission and at operation in all but two of the seventy-nine the appendix was either perforated, gangrenous, acutely ulcerated or surrounded by an abscess, remarking, "It would be about as logical to purge these cases as it would be to rub an inflamed eye or prescribe active swallowing movements for tonsillitis." A case is recalled where a young physician promptly made a diagnosis of appendiceal abscess and was discharged. An older man, in order to vindicate his haughty manner and ethical remarks, ordered a large dose of epsom salts. The post mortem revealed a general peritonitis from a ruptured abscess. One other illustration, that of a boy of twelve, giving a typical history of appendicitis, diagnosed as intestinal obstruction on the left side, treated with large doses of calomel and salts followed with relays of enemata high and low for thirty-six hours. Through the usual incision a long gangrenous appendix was quickly delivered and a large quantity of pus removed by the suction apparatus. A stormy prolonged convalescence with final recovery. These cases might be multiplied but on what grounds may they be justified?

In considering the differential diagnosis no attempt will be made to touch on all the conditions having more or less similar symptoms and fortunately most of the few that might be confused by the experienced diagnostician also require prompt surgical intervention.

In children a most minute examination must be made if we are to avoid disaster. Remembering that the meso-appendix is very short, allowing the tip to quickly become necrotic and that the omentum is too small and frail to furnish protective surroundings to the inflamed appendix. The tendency is to treat all cases as those of indigestion and the frequency with which attacks of appendicitis follow indiscretions of diet may lead to the error of delay, or the overlooking of a pulmonary condition may be the cause of embarrassing the little patient with an unnecessary operation. A boy of eleven received osteopathic treatments daily for one week, a point not revealed in the history on admission, when a physician was called who made the correct diagnosis and sent the patient to the hospital. A gangrenous appendix and a very small amount of local peritonitis was found. A good prognosis given but the boy died twelve hours later undoubtedly overwhelmed by the sepsis which had been so thoroughly distributed throughout the body by the energetic manipulations. Another boy of ten with nausea and vomiting for two days following a holiday diet, temperature 104 and much abdominal pain. But the emesis came first and although the abdomen was distended and tender, rigidity was absent. The stethoscope revealed a small spot of consolidation in the right lung and twenty-four hours later a frank pneumonia was evident. Foster reports three cases of co-existing pneumonia and

fulminating appendicitis. These were operated under local anaesthesia and all recovered.

In intussusception the emesis is more continuous, the stools contain bloody mucus, there is not the limited rigidity, and a more or less movable tumor mass may frequently be palpated. A rectal examination may also aid but too much reliance should not be placed on this procedure.

In typhoid there is a decidedly different onset and type of tenderness with a lack of rigidity and the blood picture is one of leukopenia.

Acute renal conditions may usually be differentiated without great difficulty. We have had one case of a pus appendix with circumscribed abscess and a simultaneous pyonephrosis of the lower pole of the kidney with only the peritoneum separating the two. The kidney condition was diagnosed at the operation.

In gall bladder conditions and ruptured gastric and duodenal ulcers the sudden severe pain in the upper quadrant, the greater prostration and the higher abdominal rigidity will usually differentiate.

In ectopic pregnancy the menstrual disturbance and other history and the evident loss of blood will as a rule give the diagnosis. One case now in the hospital was sent in as appendicitis and diagnosed by the receiving man as threatened abortion. She was allowed to go home after ten days but returned to the hospital three days later on account of pain near McBurney's point. A careful examination showed no rigidity but only tenderness low down. Leucocytosis 10,000 with 70% polynuclears. Operation revealed a ruptured right tube. Another case with a similar set of symptoms but with definite rigidity, leucocytosis 17,400 with 76% polynuclears, proved to be one of unruptured appendix with only slight adhesions but a beginning general peritonitis.

Cases of pyosalpinx cannot always be differentiated and frequently inflammation or pus may be found in both tube and appendix. These patients require the most careful consideration to avoid unwarranted delay and its consequences. One woman with a typical history was at first correctly diagnosed by the attending physician and then treated by abdominal cupping for one week. On entering the hospital an abscess in the pelvis was evident and at operation a ruptured appendix was found in close proximity to the left tube and ovary and one quart of pus in the pelvis. Slow convalescence but recovery complete.

Has medical treatment any place in this disease? Recurrence is almost certain in all well marked cases. Morris says that to delay operation after the diagnosis is made is immoral. DaCosta, that the term "appendicular colic" has led to much injudicious conservatism. The belief of the writer is that Murphy's dictum of, "Now is the accepted time," saves by far the greater number of patients if the operator is at all competent. The ice bag or other applications may partially relieve the pain but has no effect whatever upon the inflammatory process. I agree with the author who states that a positive prognosis of any case of appendicitis is an absolute impossibility. The



problem is one of conditions rather than of days, for all of you have had cases where the damage wrought was out of all proportion to the time elapsed since the recognized onset, and others with a longer period of illness and only a comparatively mild inflammation found.

To those who believe in delaying the operation when it is fairly certain that the disease has extended beyond the appendix; or when the condition of the patient appears to the surgeon to present a too hazardous risk, or when the combination of circumstances absolutely prevents intervention by "a safe surgeon," may I quote from Ochsner, who by the way advises waiting only under the above conditions: "Peristalsis of the small intestine can be inhibited by prohibiting the use of every form of nourishment and cathartic by mouth and by employing gastric lavage to remove any food or mucus from the stomach. The patient can be safely nourished by small nutrient enemata, large ones should never be given. This form of treatment cannot supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation. It is also important to bear in mind the fact that this treatment is always indicated without regard to whether an immediate operation is or is not contemplated." This surgeon also states in italics: "The giving of cathartics of any kind during acute gangrenous or perforated appendicitis at any time during the attack has undoubtedly destroyed more lives than surgery has saved in this disease." In brief, prohibition is the rule in any acute abdomen.

Next in importance to the mortality and immediate morbidity are the later complications which are frequently given too little consideration, both at the time of operation and during the after treatment. These fortunes of war mean much to the patient not only in health but in actual loss of time, and in earning capacity, and in future danger. Chief of these are fecal fistula, adhesions to the viscera and parietal peritoneum, hernia and subphrenic abscess, all of which may be reduced to a minimum by the trained surgeon giving careful attention to the smallest details. Even in cases where immediate closure is possible the simple failure to evert the edges of the peritoneum may result in prolonged discomfort and pain and later intestinal obstruction.

Appendectomy may be very easy or it may demand all the skill and judgment of the operator. In early cases any incision may be used, but preferably the McBurney, especially in men and children. In the more severe cases and in women the "trap door" incision, also spoken of as the Battle or Kammerer, in which the right rectus is not split but drawn toward the median line carefully avoiding injury to the deep epigastric vessels, serves better. This absolutely prevents hernia in clean cases, and even in prolonged drainage hernia may frequently be avoided, especially if batwing adhesive strips for co-aptation are employed as the discharge diminishes. In

cases of definite abscess the danger of peritonitis is greatly lessened and convalescence shortened by making the incision over the outer and lower margin of the tumor mass, thus avoiding the soiling of the peritoneum and the unsatisfactory stab-wound drainage.

Once within the abdomen, if there are no adhesions to the anterior wall the site of the appendix should be carefully surrounded with moist gauze, for a gush of pus may appear when even slight adhesions are separated causing an extension of the peritonitis and perhaps a fatal result. In looking for the appendix it is never necessary to eviscerate the patient if one will remember that the anterior longitudinal band of the cecum and the ileocecal junction always indicate the location of its base. Rarely should the appendix be left except in those cases of a very definitely walled off abscess when it is not easily found and those of severe general peritonitis where the relief of tension by incision and drainage is the only procedure permissible.

As to the treatment of the stump there are many methods and I only wish to protest against simple ligation which leaves the raw protruding surface as a potential trouble maker. The meso-appendix should not only be carefully ligated but its raw surface should either be turned in or applied to the cecum as a patch pocket and never be left floating as a bit of seaweed. We have had two cases of intestinal obstruction where this detail had been neglected in other hands.

When there is a considerable quantity of pus, either circumscribed or free, it has been my practice to remove this with a suction apparatus thus avoiding the damage of abrading sponges, and never under any circumstances to employ the old ten gallon flushing nor to remove adherent flakes of coagulated lymph. This obsolete "flushing" again appeared in an article written but a few months ago. Drainage to be of moderate sized soft rubber tubing or the cigarette. Gauze or glass drains should never be placed in contact with the bowel. With gentle handling of the inflamed tissues, the proper treatment of the stump, and careful supervision of the drainage nearly all fecal fistula will be eliminated.

In the after treatment the Fowler position will help to keep the infection from the danger zone of the upper abdomen, and abundant proctoclysis of glucose and sodium bicarbonate will supply sufficient fluid to tide the patient over the critical period.

Although aware of the polite scepticism with which statistics are usually, and sometimes justly, received, may I briefly present for your consideration data for the years 1917 and 1918. From a private hospital 174 cases with 4% mortality, 23 cases were noted as gangrenous. Average number of days in hospital, 14 $\frac{1}{2}$ . Through the courtesy of Dr. J. M. Lacey, Medical Director of the Los Angeles County Hospital, we have been able to tabulate the following: Acute cases, 197, ten of which were reported by the pathologist as sub-acute. Mortality, 8+%. Drainage cases, 120. General peritonitis at time of operation, 22.

Noted as gangrenous or ruptured appendix, 104. Some of the other details gave the following averages: Temperature on admission, 99.6, pulse, 94. Leucocytosis in 144 examinations, 17,657. Number of days of all in hospital, 24. Days drainage, 26. Days ill before operation all acute cases,  $5\frac{1}{4}$ , fatal cases,  $8\frac{2}{3}$ .

The cases cited in the course of this paper are not isolated examples but seemingly all too frequent in spite of the fact that the story of appendicitis has been written large in every surgical center, and for this reason the greater the catastrophe of the present large number of casualties. In closing, attention is again called to the necessity of ascertaining the chronological order of the symptoms, of intelligent palpation, of a blood examination and of an early and immediate intervention, adapting the operative technique to the individual case, and also a plea made for greater co-operation among medical men and laymen in the management of this common, and also commonly neglected surgical disease.

607 South Hill Street,  
Los Angeles, California.

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## PERFORATED GASTRIC AND DUODENAL ULCER.\*

By HARLAN SHOEMAKER, M. D., Los Angeles.

Perforated duodenal or gastric ulcer in a hospital population of 1,000 and a civilian population of 1,000,000, under the law of averages amounts to about 10 cases a year. Its onset is generally accompanied by sudden agonizing pain in the abdomen, with extreme rigidity of the abdominal wall, vomiting and tympanites. If left unoperated, a period of easement follows the onset, only to be superseded by a recurrence of pain, followed by peritonitis and death. In the Los Angeles County Hospital, 22 cases of perforated gastric or duodenal ulcer occurred from 1916 to 1918, inclusive. Six of these cases died. These 22 cases were divided among nine operators.

Seven ruptured ulcers of stomach or duodenum in this series of 22 recorded cases, had been previously treated medically for ulcer of the stomach or duodenum in the Los Angeles County Hospital, and discharged improved or cured, only to rupture. One perforation occurred within one month after leaving the hospital, while the longest quiescent period lasted two years. F. J. Scully, M. D., in a statistical report of the perforated gastric and duodenal ulcers in the Cook County Hospital from 1911-1916, found fifty-nine cases, including those discovered at autopsy. *Am. J. M. Sc.* 1918—C. I. V. 874.

Dr. Scully uses an anatomical classification of the gastric or duodenal ulcer, and further classifies

these cases as to age and sex. In this series of cases operated at the Los Angeles County Hospital, 18 males and 4 females were affected. As to anatomical location, seven were said to be gastric and fifteen duodenal ulcers. However, this ancient and honorable classification does not aid materially in the diagnosis and cure of the agonizing occurrence of a ruptured gut. What is most essential is how will nature protect her subject in such catastrophe?

Any one of four possibilities will arise. First, and most frequent, the ulcer, either gastric or duodenal, may rupture on the anterior, or free surface of its viscus, and the contents of the stomach spill over the transverse colon into the pelvis, or else drain along the hepatic flexure of the ascending colon, producing symptoms of appendicitis, and filling the pelvis with the discharge. Second, the viscus may rupture laterally and become adherent to the liver, the general abdominal cavity being entirely protected by adhesions. Third, the viscus may rupture posteriorly and involve the pancreas (one case with hemorrhage and death noted). Fourth, a large abscess may form about a perforation and be walled off by the transverse colon (two cases: one death). All four classical perforations have an entirely individual set of symptoms.

First, where the general peritoneal cavity is involved with a collection in the pelvis, the assault is sudden, accompanied with unendurable pain in the abdomen, generally epigastric in character, but sometimes radiating about the umbilicus. There is marked rigidity of the abdominal muscles, sometimes board-like in quality. Tympany exists in all cases. Fluid is very difficult to detect, as the paresis of the gut obscures the dullness of any collection. Tenderness is generally most marked in the epigastrium. The pain will be general and no tumor mass is palpable.

In those cases of ruptured ulcer diagnosed as appendicitis, the appendix may or may not be involved. Mayo reports that he, subsequently to a perforation operation, opened and drained an appendiceal abscess. This condition arises when the stomach contents drain along the hepatic flexure of the colon in to the pelvis. The tenderness and rigidity of the right rectus invariably suggests a diagnosis of appendicitis. Occasionally a ruptured ulcer will be overlooked if the appendix is badly inflamed. In three patients under my observation the diagnosis of appendicitis and the highly inflamed appearance of the appendix might have warranted this error. The clinical features may aid in protecting us from a mistake of this sort. First, the rigidity of the right rectus is just as great or greater at its origin from the costal cartilages as it is over the appendix. Second, the rigidity is out of all proportion to that felt in the average appendix case. Third, the inflammation of the appendix when visualized will seldom correspond to the leucocytic count. Fourth, the slimy abdominal secretion bearing food particles sometimes suggests stomach mucus. Fifth, a good generous right rectus incision aids much towards diagnosis and recovery in all excessively rigid abdomens.

The second type of perforation may or may

\*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.



not be attended with acute pain and shock. Generally the symptoms prevail over a long period of time, possibly two years, with intermittent quiescent periods. Whenever a little additional peritonitis lights up, the leucocytic count is high and the diagnosis may be ptomain poisoning (1 case recorded). It is a wise operator who leaves these protecting adhesions alone, performs a posterior gastro-enterostomy and closes the abdomen without drainage. Nature is protecting this perforation. However, the smallest drain will invariably be followed by a duodenal fistula. One case in this series illustrates the happy results of closure without drain, and one case the long continued duodenal fistula which follows upon drainage.

This series of ruptured gastric or duodenal ulcer was made up in treatment of 8 posterior gastro-enterostomies with 2 deaths, and 14 closures of the ulcer and 4 deaths. In perforating ulcer involving the pancreas, an additional symptom is added to the clinical observation. One might say that the agony is increased over the other type of perforation, if such a condition were possible. What I have observed is that the shock is more profound and consequently of greater duration. Upon opening such an abdomen too hasty a conclusion should not be reached by the mere presence in the abdomen of blood, or by the absence of fat necrosis. Exploration at this time may either be too early for appearance of a fat necrosis, or a perforation attended with hemorrhage from the ulcer itself might be mistaken for the hemorrhage accompanying perforation into the pancreas. (One case with death recorded in this series.)

The type of ulcer which has perforated anteriorly and whose secretions have been splendidly walled off by the stomach, liver and transverse colon, is perhaps the mildest of all in regard to the punishment inflicted upon the patient. These cases are generally ambulatory and do not give very clear account of sudden agonizing pain, because they have had so many pains in the region of the upper abdomen. Invariably this condition can be diagnosed upon inspection of the abdomen while the patient lies upon his back. The mass is always more readily visualized when the patient is stretched upon the hard, straight operating table. As the anesthetic relaxes the left rectus, the restriction of the respiratory wave further accentuates the collection above the transverse colon. If I might emphasize one thing in this type of perforation, it would be to make a simple drainage of the collection under a short gas anesthesia. If the colon has been pulled away from the abdominal wall, any soiling of the general peritoneal cavity will prove fatal. Two cases of this series illustrates this deduction. One was drained and recovered. A posterior gastro-enterostomy was advised and refused. A second perforation occurred and was drained. It is well to note that in one case a perforation failed to cure the ulcer. The patient recovered and later a posterior gastro-enterostomy, with a Murphy button, was done, as the stomach could not be dislocated sufficiently to place a clamp on it. The end result was a complete cure. The second patient, with an ad-

herent colon, covered on one side with a green exudate, and perfectly normal on the reverse abdominal side, suffered soiling of the general peritoneal cavity through handling, and died as result in 72 hours, of general peritonitis.

In all, six of the 22 cases reported, died. One post-operative after 90 days, following the breaking down of the anastomosis due to an infection of a continuous linen thread used as the first stitch in the anastomosis. The second case died from the breaking down of the abscess barrier with contamination of the general peritoneal cavity and its attending inflammation. The third case died from hemorrhage into the abdomen and stomach following perforation of the duodenum. This is a rare case. The fourth case operated, died of hemorrhage after 72 hours, following a gastro-enterostomy. My mind is still open on this case. The hemorrhage could have come from the ulcer. I was the operator. Case five died due to involvement of the pancreas. Case six died as a result of a general peritonitis.

After rupture of an ulcer three phases present themselves. First, the stage of contamination when no infection is present. At this time the patient will bear almost any exploratory laparotomy, or operation. Sixteen of the successful operations of this series were performed during this period. This stage generally lasts ten hours from the onset of the acute pain. A second phase occurs after contamination, after which the patient feels better. A critical review of these histories adds very little to our knowledge of this period. It is generally passed over with the remark that "the patient feels better." The last stage, that of general peritonitis, begins with the recurrence of the pain and terminates fatally.

Much discussion has been aroused from time to time over the surgical or medical nature of gastric or duodenal ulcer. In the April number, 1919, Chicago Surgical Clinics, Dr. A. D. Bevan states that "these ulcers are undoubtedly medical for a time." On the other hand, 7 cases out of 22 were previously treated in the Los Angeles County Hospital for gastric or duodenal ulcer, and discharged as improved or cured, only to be returned with a surgical catastrophe in the upper abdomen. A review of these cases does not indicate any improvement in the mortality, but successful end results were gained in all cases as the result of early diagnosis and prompt operation at the time when risk for the patient was least and chance of recovery greatest.

## BONE FORMATION AND BONE PATHOLOGY.\*

By LEONARD W. ELY, M. D., San Francisco.†

Three things are necessary for bone production: 1. Blood-vessels; 2. Building material, (a) a loose fibrous tissue, (b) a homogeneous (cartilage matrix), a granular, or a necrotic material; 3. Stimulus, physiological or pathological.

Neither marrow nor periosteum "forms" bone.

\* Read before the Forty-eighth Annual Meeting of the Medical Society of the State of California, Santa Barbara, April 1919.

† From the Stanford University Laboratory of Surgical Pathology.



In both, the materials are there, and in each, when conditions are right, bone will be formed. Bone can be formed without either.

Periosteum is the tissue covering bone, except where the articular cartilage replaces it. It usually consists of fibrous tissue, but may consist of fibro-cartilage or cartilage. Its situation determines its name, not its structure. Fibres of the periosteum run down into the bone beneath. They are not then periosteum, but marrow.

Marrow is the soft tissue contained within the bone, all soft tissue except the bone cells themselves. Its situation determines its name also. Pockets of marrow are seen occasionally on the outside of the cortex, in the neighborhood of the joints. Inasmuch as these marrow pockets are on the outside of the bone they must be periosteum, not marrow. In other words the only distinction between marrow and periosteum is situation.

Bone is supposed to be formed directly through the agency of the bone building cell, the osteoblast, and to be torn down by the osteoclast. The former is said to be a small cell with deeply staining nucleus, which is seen on the margin of the trabeculae, and sometimes on the outside of the cortex. When we see these cells in this situation we call them osteoblasts, and say that productive osteitis is going on. This is not always the case. The same appearance is often present when the bone is being torn down. The osteoblast has no physical characteristics by which we can recognize it. In acute osteomyelitis and in tuberculous osteomyelitis we often see the trabeculae lined by cells not to be distinguished from osteoblasts, yet we know the bone is being destroyed. Our reasoning has been faulty. When bone was being formed, we have seen these osteoblasts on the trabeculae. We have therefore assumed that when we see these cells on the trabeculae bone was being formed. This does not necessarily follow.

Chronic arthritis has been classified in so many different ways that the subject is surrounded by the greatest confusion. All cases fall into two groups.

Group 1 includes tuberculous, gonococcic, typhoid, syphilitic arthritis, and part of the diplostreptococcic class, especially those cases due to a focus in the tonsil, or in the deep urethra.

Group 2 includes traumatic arthritis, and those cases of the diplostreptococcic class caused by a focus in the jaws.

In the first, the essential characteristic is a proliferative inflammation in the bone marrow and synovial membrane which leads to a rarefaction and death of bone, and to a perforation, exfoliation and death of the cartilage. It results in extreme cases in fibrous or bony ankylosis between the bones of the articulation.

In the second group the essential characteristic is hard to determine. Foci of inflammation are found in the marrow and the synovia, but these cause a thickening of the bone tissue about the joint, "lipping," and spurring, and a wearing away of the cartilage, and an eburnation of the bone ends. Union of the opposing bone sur-

faces never takes place in this group, and the resulting ankylosis is due to the distortion. The joint is mechanically damaged.

These two groups are easily differentiated by their clinical manifestations and by the Roentgen picture, but the main members of each group are only to be distinguished from one another by the history and in the laboratory. Sometimes the differentiation is impossible. In the treatment of these cases of arthritis this fact should always be borne in mind.

In any chronic joint inflammation the synovial membrane becomes villous, and thickened, hence the term "villous arthritis" as describing a special form is quite meaningless. In studying the pathology of joints one often runs across this practice of adopting a high-sounding name to cloak ignorance—villous arthritis, metabolic arthritis, arthritis deformans, osteopsathyrosis idiopathica, osteochondritis dissicans, etc., etc.

Osteochondritis dissicans is the name given to a hypothetical pathological entity that was supposed to be at the bottom of some joint mice. Admit the existence of this hypothetical disease, and no further investigation is necessary.

Joint mice composed of cartilage or of bone and cartilage are generally of two kinds. The first kind is formed in the synovial membrane and possibly about the margin of the joint end of the bone, as the result of an arthritis of the second group. They are fairly common and occur at all ages.

The second kind is more mysterious and it is this kind that has caused so much discussion. It occurs in young adults or in adolescents, and almost invariably or invariably in the medial condyle of the femur. A significant thing about it is that it begins to cause trouble at or about the time of completion of growth in this epiphysis, when the epiphysis should be joining with the shaft. Another significant thing is the similarity of its structure to that of foetal bone. The probability is that it is due to an error in development of the lower femoral epiphysis, possibly to an additional center of growth which fails to unite with the main bone nucleus.

Legg's Disease is an obscure affection of the hip, often called Perthes' disease because Perthes described it several years after Legg. Following the tendency noted above, others have called it osteochondritis deformans juvenilis, and arthritis deformans juvenilis, though no evidence has been adduced that it is an arthritis or an osteochondritis.

Legg's disease<sup>1</sup> occurs in children between the 5th and 10th year. Its main feature is an irregularity of development of the head of the femur, a segmentation, a flattening, and later a lateral displacement and mushrooming. A rarefaction of the proximal, lateral portion of the neck, with a subsequent thickening and shortening, and usually coxa vara, is a frequent accompaniment. Irregularity of the great trochanter and of the acetabulum also is occasionally seen.

The clinical features are the limp and the

<sup>1</sup> Ely, *Annals of Surgery*, January 1919.

limitation of abduction. Other motions may or may not be limited. Pain may be present or absent. The diagnosis is made with the Roentgen rays.

In the past this disease has been mistaken for tuberculosis, but the X-ray picture is quite characteristic. The chief changes are on the joint side of the epiphyseal line in Legg's disease rather than on the shaft side. The flattening and segmentation of the head do not occur in tuberculosis.

Bony or fibrous ankylosis never forms in Legg's disease, nor cold abscess.

A good treatment is immobilization in plaster of Paris until the process has run its course. The hip should be put up in marked abduction, if necessary under ether.

## Book Reviews

**Elementary Bacteriology and Protozoology.** By Herbert Fox. 222 pp. Illustrated. Third edition. Philadelphia and New York: Lea & Febiger. 1919. Price, \$1.75.

As a text book for nurses this manual contains all if not more than a nurse in training can assimilate. In fact, with the exception of brevity, it is not unlike the regular text books on the subject. Probably more space could be devoted to practical details; to the taking and handling of bacteriological specimens and to the modes of communication of infectious diseases. Why the author in writing a rather advanced treatise gives bacterial measurements in fractions of an inch I can not understand.

E. A. V.

**Surgical Clinics of Chicago.** Volume III, Number 3 (June, 1919). Octavo of 287 pages, 118 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Published bi-monthly. Price, per year, paper, \$10.00; cloth, \$14.00.

R. L. Moodie: Studies in paleopathology; ancient lesions and the practice of trephining in prehistoric times. D. N. Eisendrath: Injuries of joints in war and in civil life. B. F. Davis: Cyst of the urachus. Gustav Kolischer and J. S. Eisenstaedt: Tumors of the urinary bladder. W. E. O'Neil: Persistent patent omphalomesenteric duct. B. F. Lounsbury: Plastic repair of the heel. W. F. Hewitt: Indications for Caesarean section. V. D. Lespinasse: Sterility. W. M. Harsha: Fractures. T. J. Watkins: Care of suppurating wounds following abdominal section. R. T. Vaughn: Hematoma of right rectus muscle. E. L. Moorhead: Stricture of esophagus. Gonorrheal spur on os calcis. C. E. Humiston: Demonstration of five cases. F. B. Moorhead and K. W. Dewey: Composite odontoma. G. L. McWhorter: Surgical treatment of empyema. A. E. Halstead: Diverticula of esophagus. Karl A. Meyer and W. F. Moncreiff: Volvulus. A. J. Ochsner: Umbilical hernia. Intestinal fistula. Excision of coccyx and repair of ventral hernia. Carl Beck: Extensive osteomyelitis with necrosis of tibia. Carcinoma of upper eyelid. Webbed fingers. Dr. Gatewood: Duodenal ulcer. A. D. Bevan: Obstruction of common bile-duct. Brodie abscess. Rodent ulcer of face. Pilonidal cyst. Gastrotomy on baby for removal of open safety-pin. Tumor of urinary bladder. Amebic abscess of liver.

**The Medical Clinics of North America.** Volume III, Number 1. (The Chicago Number, July, 1919.) Octavo of 277 pages, 59 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Published bi-monthly. Price per year, paper, \$10.00; cloth, \$14.00.

I. A. Abt: Prognosis of disease in infancy and childhood. Case of Hanot's cirrhosis in a two-year-old child. Frederick Tice: Mediastinal tumor. Carcinoma of stomach. J. H. Hess: Radiographic differential diagnosis of bone and affections in infancy and childhood. M. M. Portis: Unusual case of carcinomatous metastases in bones secondary to carcinoma of stomach. Acute pyelitis simulating intestinal obstruction. Carcinoma of esophagus treated with radium. R. C. Hamill: Case of cerebral lues to be differentiated from encephalitis lethargica. Neurologic findings in a case of ethmoiditis. Consideration of causes of apprehension. C. G. Grulee: Pyelocystitis in infancy. Solomon Strouse: Pulmonary tuberculosis with gastrointestinal symptoms. Pulmonary tuberculosis and hyperthyroidism. Case of belladonna poisoning. C. S. Williamson: Malignant endocarditis of pulmonary valves. Gout. Peter Bassoe: Swift-Ellis treatment of parietic dementia. W. D. Sansum: Treatment of constipation. G. F. Dick: Unusual case of typhoid fever. J. G. Carr: Cardiac arrhythmias. Case of syphilitic periostitis of humerus. Pulmonary abscess following tonsillectomy. A. F. Byfield: Some aspects of Hodgkin's disease. R. J. Tivnen: Eye findings as an aid to diagnosis of general conditions; a suggestion for team-work. Robert Sonnenschein: Some interesting ear cases. W. W. Hamburger: Irregular placement and fixation of large bowel. Frank Wright: Consideration of abnormal loss of fluid in contrast with edema.

**Quarterly Medical Clinics.** Volume I, number 2. (April, 1919.) 219 pages. Illustrated. Published quarterly. St. Louis: Medicine and Surgery Publishing Company. 1919. Price per year, \$5.00.

Epidemic encephalitis, chronic, non-active, peptic ulcer. Thrombosis of cerebral arterioles and myocardial inefficiency producing epileptiform attacks; infected tonsils and roots of the teeth. Myocardial weakness, cardiac dilatation, "paroxysmal tachycardia," pulmonary edema, severe, "secondary" anemia, abscesses of the roots of the teeth and obesity. Peptic ulcer complicated by recent gastrorrhagia; lues. Tertiary lues; gummata of the stomach and Charcot's knee. Anemia of "hemolytic" or "pernicious" type consequent upon chronic lead poisoning; arteriosclerosis; myocardial hypertrophy and degeneration; infection of gums and about the roots of the teeth. Malnutrition of extreme degree; gastrorrhagia and melena neonatorum. Common bile-duct obstruction due to pancreatic cirrhosis; pyloric obstruction with pronounced dilatation of stomach; chronic cholecystitis. Obstruction of sigmoid portion of colon due to tumor of inflammatory type arising from sigmoid diverticula. Deep urethral obstruction caused by carcinoma of prostate resulting in enormous dilatation of urinary bladder; general arteriosclerosis, with arterial hypertension, cardiac hypertrophy and interstitial nephritis; chronic pancreatitis. Chronic ulcerative enterocolitis in association with amebiasis, cercomoniasis and trichomoniasis; chronic splenitis; anemia; focal infections in head sinuses and mouth. General arteriosclerosis; aneurysmal dilatation of thoracic aorta; arterial hypertension; myocardial hypertrophy and dilatation; cerebrospinal lues. Advanced "hemolytic" or "pernicious" anemia; abscesses of the roots of the teeth; chronically infected appendix and gall-bladder; splenitis and perisplenitis.



**Psychiatric-Neurologic Examination Methods**, by Dr. August Wimmer. Authorized translation by Andrew W. Hoisholt, M. D. St. Louis: C. V. Mosby Company, 1919.

A guide for students and practitioners in the examination of psychopathic patients, translated from the Danish.

The 177 pages are nearly equally divided between the psychic and the physical examination. Ordinarily one is accustomed to complain of the padding in books offered. Here it is a question if there be not too much condensation, particularly in the first or psychic part. What may be an excellent aide mémoire for the adept, may leave the tyro bewildered. For instance, Sections 1 and 2 of Chapter II, would have been better for a little more amplification.

The second part concludes with examination of the spinal fluid. Technic is given for puncture, cell count, and albumin determination. As usual, Nonne is undeservedly given credit for the ammonium sulphate test for globulin. The nine illustrations are rather primitive. None the less, barring a few minor criticisms, the book is one to commend heartily. Hitherto there has been no equivalent for it in English, and thanks are due Dr. Hoisholt for making it available. E. W. T.

**Home Dietician.** By Belle Wood-Comstock. 221 pages. Pasadena, 1919.

This little book is written apparently with the idea of furnishing the housewife the latest ideas on dietetics in a semi-popular or newspaper reporter style. We doubt very much whether this mixture of quotations from McCollum, Lusk and James Whitcomb Riley is justifiable. It would seem that a person with sufficient interest, intelligence and application to digest this book with its interlarding of poetry and fiction might just as well read the really authoritative and more fascinating books of McCollum, Sherman or Lusk. It would seem also that she who proposes to teach should be surer of her facts than is Dr. Comstock. For instance, on page 29 her description of a caloric as the amount of heat required to raise a pound of water 4° F. or 1° C. is neither scientific nor accurate. It is not "doubtless" that the body makes its internal secretions, digestive enzymes, etc., out of the vitamins. We will not admit that "chronic disease is largely due to defective food analysis in the body" and that "these conditions are all preventable." Neither do we believe that "of the flesh food eaten, one-tenth to one-seventh putrefies or rots in the intestines."

It seems unfortunate that a book intended for the layman should contain so many unsubstantiated statements, all calculated to fill him with a dread of the horrors of auto-intoxication. The section on flesh food with its description of slaughter houses and maggots is also plainly intended to disgust the reader and to force him to live on green vegetables and raw fruits. The author wisely warns against fads in dietetics but unwisely appears to have taken up several herself. She has great faith that a low protein intake, with much raw food, green vegetables and whole wheat will cure the chronic ills of the flesh. She is so enthusiastic about whole wheat and bran that she advises her readers to buy a hand mill so as to be sure that none of the indigestible husk is lost. Her enthusiasm for green vegetables leads her in her discussion of vitamins rather to obscure the fact that the main sources of fat soluble are butter, milk and egg yolk. Most of these faddists who believe that health comes through getting back to "nature foods" which they assume nourished our fur-clad ancestors, should do some reading. They might learn that primitive man was, and generally is today, a

hunter living on meat. They might also with profit commit to memory McCollum's statement that his studies have "made it clear that food packages just as they come from the hand of Nature are not necessarily so constituted."

W. C. A.

## County Societies

### ALAMEDA COUNTY.

The regular monthly meeting of the Staff of The Samuel Merritt Hospital was held at the Hospital on the evening of Dec. 1, 1919. A paper entitled "Things That Make for Success in Gynecology" was read by Dr. Wm. S. Porter. The general theme of the paper was that obvious one, frequently lost sight of, that in all relations, the patient's interests should be kept more prominently in mind by the gynecologist than such benefits as he may personally expect to derive. It was a wholesome paper, reflecting the well-balanced views of many years of experience and success.

An instructive paper concerning the physician's relation to the Industrial Compensation Commission was read by Dr. Morton Gibbons.

Dr. W. A. Clark has but recently returned from Rochester.

Dr. W. A. Clark has but recently returned from a visit to the Mayo Clinic.

Dr. Jau Don Ball entertained the following guests at dinner at the Hotel Oakland before the Meeting of the Alameda County Medical Association, Nov. 17, 1919: Dr. Fred Clark, superintendent State Hospital, Stockton; Virgil E. Dickson, Ph. D., Director of the Bureau of Research and Guidance for the Public Schools of Oakland and Berkeley, Calif.; Dr. W. C. Rappleye, U. C. Med. School, S. F.; Dr. J. T. Adams, formerly from the Boston Psychopathic Hospital; Drs. W. H. Streitmann, H. G. Thomas, J. L. Lohse, P. H. Buteau, L. P. Adams, Dr. Pauline S. Nusbaumer and August Vollmer, Chief of Police, Berkeley.

### LOS ANGELES COUNTY

Los Angeles County Medical Meeting, Nov. 6, 1919, Friday Morning Club Hall.

The president of the society, Dr. Wm. T. McArthur, with some pleasant remarks about the beautiful new quarters, opened the session and introduced Dr. Hugh Crouse of El Paso, Texas.

Dr. Crouse spoke on "Chronic Duodenal Dilatation: Its Concomitant and Sequential Pathology." He illustrated the subject by means of fifty pen and ink drawings. Dr. Lobingier discussed the various conditions presented.

#### "Chronic Duodenal Dilatation: It's Concomitant and Sequential Pathology."

HUGH CROUSE, M. D., F. A. C. S.

Read before the Los Angeles County Medical Society, Nov. 6, 1919, Friday Morning Club Hall of the Los Angeles Medical Society.

The above subject was handled from embryological, histological, physiological and anatomical viewpoints. The subject matter, wherever possible so to do, was jointly, verbally and pictorially presented. Sixty-five slides reproducing pen and ink, wash drawings and X-ray pictures, were projected subsequent to the paper's reading.

The salient features of the paper were that chronic duodenal dilatation was a common, not a rare condition; that such, no doubt, preceded the major portions of acute gastro-duodenal dilatation cases; that there is abundant clinical evidence refuting recent laboratory conclusions of the non-essential of the duodenum; that comparative physiological studies showing the carnivorous with a scattered Brunner gland condition; the herbivorous-carnivorous with a more closely grouped gland



presence, and the true herbivorous, having the sheep as an example, with a perfect sheet of those glands, suggest the carbohydrate action of the secretion of the glands of Brunner; that a hormone, no doubt is produced within the duodenum, secretine being no doubt the agent. The effect upon the pancreas, the vaso-motor and vagal nerves, manifestation of irritation in acute gastro-duodenal conditions suggested such conclusions.

The etiology of chronic duodenal dilatation was serially given as transverse colonic ptosis alone or accompanied by stomach displacement; direct dropping of the jejunum; short bowel mesentery with a consequential duodeno-jejunal occlusion and superior mesenteric vessel compression effect; embryological or developmental bands; tumors of the pancreas, adhesions between the gall-bladder and duodenum, etc.

The sequential pathology and concomitant pathology were classified, namely: pancreatitis, cholecystitis, nephritis, cardiac irritability and gastric dilatation.

The latest diagnostic methods were covered, some of them illustrated. History taking, duodenal secretion tests and serial X-ray demonstrations as well as paradoxical percussion tests were the chief aids to diagnosis. The treatment was discussed from a medical, mechanical and surgical angle. Medical and mechanical classified as answering in 90 per cent. of the cases, such covering Jutte's duodenal lavage and a selected diet. The surgical viewpoint was classified as the real curative agent, but was recommended in only 10 per cent. of cases. The author's use of the falciform ligament in an adjunct sense to Beyer's gastro-hepatic plication technique in gastric ptosis, and duode-jejunosomy sub-colonically utilizing the second duodenal third, instead of the first third as devised by Bilioth, was recommended and illustrated.

Forty-nine cases were recorded as personal observations by the author.

#### The Teeth in Relation to the Digestive Tract.

By DR. S. FLOERSHEIM.

That the teeth are essential as an aid to the digestive tract is evident by facts that nature made them a part of the system and placed them in a prominent and adaptable position.

It is imperative that these organs should be preserved as long as possible and in as healthy a condition as lies within our means. Prevention of disease rather than cure is the paramount feature.

The main function of the teeth is mastication; the lesser function cosmetic. Mastication brings into play other functions, increased secretion and flow of saliva, sense of satisfaction, and arousing to activity the upper portion of the digestive tract.

Mastication beckons to a number of valuable and essential physiological functions: fine divisibility of food, intimate miscibility of saliva about starchy granules, lubrication of the bolus, and others.

Bolting of proteins does little harm; bolus swallowing is different with starchy food. The carbohydrates would be deprived of the active principle of the saliva.

We should be cognizant of a missing link in the everlasting complaints of so-called dyspepsia or indigestion in the patients who have many or all teeth missing, the remaining ones in poor condition not necessarily diseased. When artificial teeth are substituted these complaints materially mitigate. Cognizance is taken that systematic conditions such as syphilis, the so-called rheumatic conditions and dyscrasias play an important role in the etiology and treatment of diseases of the teeth.

Modern civilization is striving its utmost in further refinements of foodstuffs in the effort to de-

crease or do away with the essential physiological processes of mastication and the utilization of saliva. The arguments are not in defense of the above measures but to effect the saving of the so-called wasteful meal hours. Rest and relaxation during the meal hour are favorable to the body and mind.

Deficient mastication means deficient digestion often terminating into deficient nutrition. Deficient peristalsis underlies improper evacuation of the intestines which in turn does lead to recognized pathological conditions of intestinal putrefaction and fermentation, or auto-intoxication, acidosis, or toxemia; it is the action of the products from the pathology of the intestinal tract when absorbed which adds greatly to dental pathology.

A remedy to curtail our present dental pandemic apparent to all present would not be of material benefit to our present adult populace. If good, better, and the best results are to be aimed at, then prevention of decay and loss of teeth should, and must, begin in early life.

#### Meeting of November 20, at 8 o'clock in the Los Angeles County Hospital, Dr. Wm. T. McArthur presiding.

A series of case reports from Los Angeles County Hospital clinics by the following members of the staff:

Dr. Chas. C. Browning reported a case of Tuberculoma of the Spinal Cord at the eighth segment, showing lantern slides illustrative of the condition.

The patient, male, age 30, was received on the tuberculosis service of the Los Angeles County Hospital Oct. 9, 1919, with symptoms of advanced pulmonary tuberculosis. Examination showed loss of motion in left leg; sensation apparently normal; left knee jerk exaggerated; right normal; Babinski on both sides, more on left; no ankle clonus; abdomen rigid and tender. Examination of spine by X-ray, negative. Lumbar puncture, ten c. c. of fluid drawn. Fluid under moderate pressure. Clear, three cells to the field. Nogouchi negative. Blood and spinal fluid Wassermann negative. Reactivation dose of .6 gm. neosalvarsan given later and again the Wassermann was negative.

Diagnosis, Tuberculosis of the spinal cord.

Autopsy Nov. 9, by Dr. H. E. Butka from whose report the following is taken:

A grayish nodule about the size of a small navy bean was found compressing cord substance, just beneath the meninges anteriorly, extending further to the right of midline than to the left. This tumor was firm, hard, and shelled out easily from the cord.

Microscopical examination, section of tumor revealed tuberculous granulation tissue. Absence of typical giant cells, numerous well stained Tubercle Bacilli.

Dr. Browning stated that he had been able to find reports of but 77 cases of tuberculoma of the spinal cord.

#### Case of Myelogenous Leukemia with Therapeutic Result by Dr. Egerton Crispin.

This patient, E. W., was well until he had influenza in March 1919; he did not regain his strength. In April he noticed tumor in splenic region. Tumor had increased to iliac crest and to right of mid-line by September, when he came to the Hospital. White count 475,000 with large proportion of myelocytes, hemoglobin 45; R. B. C., 2,190,000. No glands palpable. Given small doses of Fowler's solution and X-rayed on the 14th, 17th, and 26th, over spleen and long bones. White count on 27th was 168,000. At present white count is 4000; R. B. C., 4,000,000 and hemoglobin 80; patient has gained 25 pounds and feels well and strong. Spleen not palpable except on deep inspiration. No infective foci found nor do chemical and X-ray

examinations reveal anything that has any bearing on the leukemic state.

This patient is from the service of Dr. F. J. Leavitt and of Dr. Avery Newton, visiting medical chiefs, who advised the X-ray therapy given by Dr. Taylor, roentgenologist at the County Hospital.

### Cerebral Concussion and Contusion Following Injury, Decompression.

By DR. CARL W. RAND

The patient, an Italian laborer, age 38 years, entered the County Hospital September 2, 1919. He was struck on the head at 11:45 a. m. that date, and rendered unconscious. When seen five hours later patient was found to be in a state of semi-coma, with bruises over face, ecchymosis of both eye lids, and a small scalp wound in the occipital region which had been repaired. No palsies or sensory changes present. Patient made purposeful movements. The pupils were small, equal and reacted to light. Eyegrounds showed the disc margins blurred; and rather full but not tortuous vessels. No vomiting. All deep reflexes about normal and equal. Superficial reflexes normal and equal. General physical examination negative. Pulse 78, respirations 24, B. P. 120-80, temperature 102. A diagnosis of contusion of the brain, with generally increasing intra-cranial pressure was made and a right sub-temporal decompression performed. Points of interest: (1) Signs of gradually increasing intra-cranial pressure without skull fracture, reaching a point where intervention seemed necessary, 30 hours after injury. (2) Marked slowing of the pulse (48) coming several hours after the decompression, in spite of the fact that the eyegrounds were clearing, and that the patient's mental condition was improving. (3) Onset of symptoms simulating meningitis eight days after operation. The examiner has seen several other instances presenting these signs in the presence of bloody cerebro-spinal fluid following brain injuries. In these the fluid was sterile, and the signs of meningeal irritation subsided in each instance. Does blood in the cerebro-spinal fluid act clinically as a meningeal irritant? (4) Patient presented no symptoms of post-traumatic neurosis, ten weeks after injury.

Examiner believes that early and adequate relief of pressure accounts for this gratifying convalescence.

### Lymphatic Leukemia.

By ALFRED J. SCOTT, JR., M. D.

S. B. 4 years. Glands neck swollen. First noticed September 7, 1919. Tonsils removed October 3rd show no malignancy, no tb. Blood count, reds 3,888,000, whites 43,000, 97% lymphocytes, 5% polys. Stools, urine negative. Von Pirquet negative. Temperature 101-102½, spleen below naval marked increase of thymus and mediastinal glands shown by X-ray. Axillary and inguinal glands enlarged.

Family history: Negative, no similar trouble either side. Past history: Normal birth, breast fed, normal history up to onset present condition. Mother during pregnancy very well. Under X-ray and benzol 2 drop doses, 3 times day after meals, glands began to show signs of diminishing, blood count on Nov. 14, 243,000 whites, 97% lymphocytes.

Prognosis: Bad, as child is getting weaker and becoming more anemic in appearance.

Discussion: Dr. Henry Snure emphasized the difficulty of determining the exact groups to which any particular cell found in leukemia might belong, especially in the later stages of the disease when cell differentiation is not so perfect. He believes Mallory's classification to be the best and places

the above case among the acute lymphoblastomas.

### Case Report by Dr. Leon Shulman.

Mrs. B., aged 27, has had tuberculosis of the lungs and larynx for the last three years. About the middle of July while walking on the pier at Redondo Beach, she slipped and fell. A week later she complained of pleurisy pains in the left side. The pain stopped suddenly and was replaced by an intense suffocating dyspnea, so severe that the patient would lapse at times into semi-consciousness.

She entered our service August 1, with a typical picture of shock. Examination: Marked dyspnea; absence of respiratory excursion on the left side, increased excursion on the right; cardiac impulse displaced to the right. Palpation: Respiratory excursion absent on the left, also tactile and vocal fremitus; apex beat displaced to the right. Percussion: High pitched dull tympany on the left, except at the base which was dull; dullness in both apices; right base hyper-resonant. Auscultation: Breath sounds absent on the left, except in the apex, which showed harsh broncho vesicular breathing with numerous small moist rales; vocal resonance diminished; metallic tinkle slightly audible in left apex; no succession splash; coin sound positive. On the right we found broncho vesicular breathing with numerous indeterminate moist rales. About 5 cc. of clear serous fluid was removed from the left base which proved to be sterile on culture.

Diagnosis: Hydropneumo-thorax.

Treatment: We treated this case exactly as a hemorrhage of the lung. The patient was kept absolutely quiet. Nor was any meddlesome therapy indulged in. It is highly important to protect the heart and reduce shock to a minimum. In removing the fluid we were careful not to remove too much, nor to allow air to enter through the needle. For the extreme suffocation we used oxygen, morphine and atropine. Today the patient's heart is in its normal position, the pneumo-thorax practically obliterated, she has gained 13 pounds in weight, and her tuberculous process has subsided greatly.

### Discussion by Dr. Chas. C. Browning.

Relative to the withdrawing of fluid in cases of pneumo-thorax as suggested by Dr. Shulman for relief of symptoms, I suggest that this should not be undertaken in a case in which the pneumo-thorax has recently occurred, because if the opening which allowed the escape of air into the chest has not healed, air will take the place of fluid and the symptoms may be increased. This procedure should only be undertaken after sufficient time has elapsed that there is a probability that the opening has healed, and then very cautiously, a small amount of fluid being withdrawn at one time.

### Report of Three Cases by Dr. Walter Wessels.

Case 1. Diagnosis: Duodenal Ulcer. Sippy diet brings relief.

Case 2. Mr. M., 56. For thirty-five years has had stomach trouble. Six months ago the symptoms changed, becoming continuous. Weight-loss, forty pounds. Anemic. Sense of resistance in epigastrium and visible peristalsis. Absence of free HCl. Stool-blood positive, repeatedly. Wassermann, negative. Blood-count 3,600,000. X-ray shows a marked filling defect in pyloric area with six hour retention. The diagnosis of gastric carcinoma is simple.

Case 3. Man, 38, comes in with a history of hemetemesia and a consequent anemia. R. B. C. 1,350,000. Stomach contents show normal values. Stool-occult blood, positive. X-ray report: "Poorly



filled duodenal cap with signs of obstruction, possibly beginning carcinoma." Wassermann, negative.

Owing to the age, signs of obstruction of the pylorus and danger of malignant change in an old ulcer we feel that this is a case for surgery, gastro-enterostomy and exploratory—it being probably non-malignant.

Discussed by Dr. Stanley M. Granger.

#### Dairy Luncheon.

The luncheon given to the members of the Los Angeles County Medical Association by Messrs. Kentfield and Carter on the spacious lawns of the Arden Dairy estate on Sunday, Nov. 9th, proved such a wholly enjoyable affair to the 400 guests who were able to attend that the announcement of the hosts that they intend to make it an annual event met with most enthusiastic approval on every side. After the physical needs of the guests had been satisfied, an inspection tour of the barns and stock yards was instituted with a view to enlightening the doctors as to the actual working of the various devices of sanitation and refrigeration which have been installed to bring the plant up to the standard set by the Milk Commission as a basis of certification.

#### Minimum Life Insurance Examination Fee.

The council of the Los Angeles County Medical Association went on record by a vote of its directors, that five dollars should be the minimum fee in life insurance examination.

The Southern California Society of Anesthetists took up the matter of insurance fees at the regular meeting, Nov. 4, 1919, and voted unanimously that the Southern California Society of Anesthetists protests against a fee for insurance examination of less than \$5.00.

Let us hope that every county society of the state of California will do the same at the next meeting, so that the regulation may take effect from the first of January.

Five dollars really is a pre-war fee. Now the cost of living has doubled. The higher the fee, the more thorough can be the examination, which would save expense to the companies and enable the applicants to avoid possible danger to health and life.

#### PERSONALS.

##### Capt. Orbison, U. S. Relief Head, Gassed.

Capt. J. Orbison, head of the American Relief Administration in Riga, was badly gassed during the bombardment of Riga with gas shells by the forces of Colonel Avaloff-Bermond, says a dispatch to the Daily Mail from Helsingfors. Later advices state that Dr. Orbison recovered completely.

##### Physician Back From War.

Dr. E. N. Reed returned to his home in Santa Monica Nov. 22, after having served in the medical corps of the army for two years. During his term of service he had been stationed at Camp Fremont, Camp Kearny, and during the past six months at the Letterman Hospital, San Francisco.

##### Dr. Newcomer Heads Pomona Association.

Dr. Paul W. Newcomer is the newly elected president of the Pomona Valley Medical Association. Dr. W. H. Eaton is secretary, and Dr. Charles Bennett of San Dimas, is counselor.

At the last meeting addresses were made by Dr. F. W. Burns and Dr. A. E. Pomeroy.

##### Dr. Brainard Wins Psychopathic Post.

Dr. H. G. Brainard has been elected president of the Psychopathic Association of California. The other officers chosen were as follows: Judge Louis W. Myers, vice-president; W. S. James, secretary; board of directors, Franklin Booth, Judge Paul J.

McCormick, Judge Sidney N. Reeve, Dr. Charles L. Allen, Dr. Ross Moore, Dr. E. H. Williams, Mrs. O. P. Clark, Mrs. Carry Parsons Bryant and Mrs. W. S. James. Mrs. Elizabeth Maw, corresponding secretary.

Dr. M. J. Abramson, one of our members who has been in the East taking post-graduate work, has been acting as house surgeon for Bellevue Hospital, New York, for the past half year. He has kept his membership in the Los Angeles Association, and we are glad to hear that he takes "great pleasure" in reading his Bulletin.

#### Reunion in Serbia.

Recent reports from over-seas tell us that Drs. Laura T. Myers, Etta Gray and Lula Peters, three popular and well-known members of the Los Angeles County Medical Association, are now together in Serbia.

Dr. Gray has motored from Paris to Belgrade in her work of establishing a chain of hospitals, and Dr. Myers is connected with one of the units which is to take over one of the hospitals.

#### First to Leave.

That Dr. Jack Murietta is home again after an absence of two and a half years is welcome news. He was senior surgeon on one of the big transports, and left the first week of the war.

#### ANNOUNCEMENTS.

Dr. Charles Lewis Allen, 900 Los Angeles Investment Building, Neurology and Psychiatry. Main 5385. 10551.

Dr. Curtis M. Beebe, 422 Bradbury Building, Broadway 2150. Doctor for the Hearing.

Dr. Jirah Marston Downs, M. R. C. U. S. Army.

Dr. John Dunlap, 820 Baker Detwiler Building, Orthopedic Surgery. 64808.

Dr. J. G. Evans, 732 Merchants' National Bank Building, Phone 12565. General practice.

Dr. Clifford McKee, 827 Marsh-Strong Building, Obstetrics.

Dr. George W. D. Robbins, 805-6 Title Guarantee Building. Phone 12759. Pathologic Conditions of the Feet.

#### HOSPITALS.

##### New Superintendent for County Hospital.

Norman R. Martin, Superintendent of Charities, announces the appointment of Dr. Neal Naramore Wood, as First Assistant Superintendent of Charities and Medical Director for the Department of Charities of the County of Los Angeles, effective November 1, 1919.

The appointment is made from an eligible list promulgated by the Civil Service Commission as the result of examination held September 12, 1919, at which eighteen applicants were examined, and Dr. Wood passed No. 1; Dr. Robert A. Jones, passed No. 2; Dr. Edwin D. Ward, passed No. 3.

The board of examiners consisted of several prominent physicians, including Dr. Fitch C. E. Mattison, Dr. Egerton Crispin, Dr. J. V. Barrow, all of Los Angeles, and Dr. R. G. Brodrick of San Francisco, Superintendent of the San Francisco Hospital.

Dr. Wood is aged thirty-five years; graduated from the High School at Ann Arbor, Michigan, as honor graduate; attended the University of Michigan and graduated in 1908; was instructor in the University of Michigan Medical School from 1908 to 1911; then attended the Army Medical School in Washington, D. C., same being required prior to entrance in the United States Regular Army Medical Service. He was the honor graduate from that school in 1912; served as instructor, physician and surgeon, sanitarian and hospital administrator in the United States Regular Army from 1912 to 1918, during which time he was advanced from Lieutenant to Lieutenant-Colonel. Dr. Wood saw active field service in the Army as



medical officer on the Arizona border for several months in 1912; also served at Fort Apache, Arizona, and Schofield Barracks, Hawaii, and also at Base Hospital No. 3, Brownfield, Texas, and during the late war was in command of a base hospital of 1880 beds at Camp Custer, Battle Creek, Michigan, for a period of ten months. He was later in command of the Army General Hospital No. 24 of 1000 beds, Pittsburgh, Pennsylvania.

Dr. Wood will succeed Dr. J. Mark Lacey, who resigns to enter private practice, after having been connected with the Los Angeles County Hospital for about six years. Dr. Lacey has served the Hospital long and faithfully during strenuous times, and his services were particularly meritorious during the influenza epidemic one year ago. Dr. Lacey's co-workers regret exceedingly that he feels he must sever his connection with the Hospital on account of his private interests, but he will leave with the best wishes of everyone for his future success.

#### Barlow Sanatorium.

One result of the campaign of George Pelton to install motion picture equipment in the hospitals of Los Angeles, was the presentation, Nov. 29, by Jesse Lasky, of a picture projecting machine and a screen, with the promise to furnish pictures regularly and free, to the Barlow Sanatorium.

Contributions for the purchase of machines for the various hospitals of the city and county will be received by N. R. Martin, County Superintendent of Charities and Treasurer of the Hospital Picture Machine Fund.

#### New Hospital for Cripples.

To take care of the physical, educational and vocational needs of the crippled children, an orthopedic hospital-school is to be established by the Los Angeles Orthopedic Foundation.

This organization, composed of seventeen prominent men of this city, has been interesting itself in children crippled from infantile paralysis, from club feet, or from other causes, who, because of their affliction are unable to mingle with other children and consequently are obliged to forfeit school advantages.

For the past year the Los Angeles Orthopedic Foundation has been developing plans for a permanent institution to meet the requirements of these unfortunate children.

For the past five or six years, crippled children have been cared for by the Crippled Children's Guild of 1022 South Figueroa, where more than 400 children have registered each year. A clinic for free consultation is conducted there by Dr. C. L. Lowman, and each department of the child's welfare is given attention.

The proposed institution will contain a fully equipped hospital, as well as school rooms, gymnasium and vocational training facilities that will teach the children to be self-supporting eventually. It is also proposed to have at a later date a number of model cottages where the girls can be taught domestic science and the care of a home.

The site of the proposed institution has been donated by John Brockman, who gave to the Foundation a piece of property valued at \$90,000, and located between West Adams and Twenty-third streets, fronting on both Flower and Hope streets. It was formerly the old Singleton place, and although the house was destroyed by fire some time ago, the grounds are still beautiful. A large barn that is still standing will serve admirably for the gymnasium and vocational training work.

Added to Mr. Brockman's generous gift came a "starter" from Mrs. Anita Baldwin, who sent a check for \$50,000. Another friend of the institution gave \$5000 and various amounts aggregating another \$5000 have been given by others.

Officers of the Los Angeles Orthopedic Foundation are: George Dryer, president; W. E. Tussing, vice-president; H. H. Baskerville, secretary, and W. E. McVay, treasurer. W. R. Kirkley, J. O. Smith and Llewellyn Parker compose the building committee; Alexander Brick, the Rev. H. D. French and Seymour Tally, Jr., form the finance committee; Frank Hutton, F. B. Alexander and F. E. Eckhart have been chosen as the campaign committee. Other members are Dr. Carl Patten, the Rev. T. C. Marshall, George L. Bannister, G. B. Wardman and Dr. C. L. Lowman.

#### ORANGE COUNTY

The December meeting of the Orange County Medical Society was held at the library building at Santa Ana on Tuesday evening, December 2.

A large attendance was present as considerable interest had been aroused by the fact that a committee had been appointed at a previous meeting to report on a fee bill. The committee reported at this meeting and the matter was thrown open for general discussion. The fee bill was accepted by a large majority of those present, but not unanimously. The fee bill dealt with the smaller matters such as day visits, mileage, office consultations and obstetrics without attempting to regulate the surgeon's fees for operations. The general feeling of the members was that the fees had been altogether too small in consideration of the high cost of living. Although the action of the society was not unanimous in the matter it is believed that the great majority of the members will raise their fees to those of the standard recommended by the committee.

At a late hour Dr. B. Raiche of Balboa read an interesting paper on normal labor which brought forth some interesting discussions. Some members of the society have a very keen recollection of the Dr. Mang, about whom the article appeared in the November State Journal. The doctor operated through this county last spring, persuaded some members of the society that he was a former associate of the late Nicholas Senn, was an expert surgeon, especially gynecology, but being a little short of funds would appreciate a little financial help.

Several of the Orange County physicians attended the meeting of the Southern California Medical Society at Los Angeles on the third and fourth.

Drs. John I. Clark and W. C. Dubois of Santa Ana had a narrow escape from electrocution while endeavoring to find the cause of death of a patient to whom they had been hurriedly called because of his electrocution in his garage. They are both recovering nicely and with the exception of some burns and extreme nervous shock are none the worse for their almost tragic experience.

#### SAN DIEGO COUNTY

The annual election of the San Diego County Medical Society was held on Tuesday, December 9, the polls being open throughout the day; and the results were announced at the close of the annual dinner held at the Maryland Hotel the same evening. The officers elected for 1920 are:

President, Dr. Lyell C. Kinney; Vice-President, Dr. J. Perry Lewis; Secretary, Dr. George B. Worthington; Treasurer, Dr. Mott H. Arnold; Delegates: Drs. W. W. Crawford, Lyell C. Kinney and Rawson J. Pickard; Member of the Milk Committee: Dr. Ernest Cleverdon; Councilors: Dr. James F. Churchill, H. Clifford Loos and H. A. Thompson. Alternates: Drs. Frank Bell, F. P. Lenahan, A. M. Lesem, J. C. E. Neilsen and Carl S. Owen.

Following the announcement of the election re-

sults the members listened to a few interesting reminiscent remarks by Dr. Thomas L. Magee, the oldest member of our local society.

Conspicuous among the routine business was a short talk by the retiring secretary, Dr. W. W. Crawford, full of constructive suggestions for the benefit of the society of tomorrow. Dr. Crawford's two years of office have been characterized by marked executive capacity and an initiative that has resulted in many fruitful developments in the southland. It is with much regret that the Society parts with his valued services as secretary.

The paper of the evening was a delightful informal discussion of arteriosclerosis by Dr. James F. Churchill. His handling of the subject, touching upon the high spots of its every phase, was characterized by a nicety of judgment and good taste in placing emphasis on the essentials of this vital problem. Papers of this practical character should be made available through reprints to all our members for a careful reading. The paper was discussed by Drs. Smart, Pollock and Churchill.

New members recently acquired are: Drs. Marjory Macpherson Potter, K. W. Constantine, Clair L. Stealy and Herbert S. Anderton.

Dr. E. A. Hensel, a member of our local Medical Society Council, is still confined to St. Joseph's Hospital by a tedious illness.

Dr. H. P. Newman, who has been confined to the house for several weeks, we are glad to say is about again and exhibiting his usual energy.

A committee is already at work to insure a good attendance from San Diego at the next state convention. It is the intention to have at least one private car at the disposal of the members and their ladies.

## SAN FRANCISCO COUNTY

### Society Meetings

Proceedings of the San Francisco County Medical Society

During the month of November, 1919, the following meetings were held:

#### Tuesday, November 4—Section on Medicine

Mt. Zion Hospital Clinical Evening

Meeting held at the Hospital.

1. Some interesting duodenal conditions.—Harold Brunn.
2. Autogenous vaccines in the treatment of bronchitis and asthma.—S. H. Hurwitz.
3. Diagnostic value of pyelography in kidney lesions. Demonstrations.—W. E. Stevens.
4. Syphilis of the bladder.—L. C. Jacobs.
5. Demonstration of interesting plates from the hospital laboratory.—Lloyd Bryan.

#### Tuesday, November 11—General Meeting

President read nominations made by the Board of Directors and the President for officers for 1920 and called for additional nominations from the floor. No additional nominations for any of the offices were made.

Clinical demonstration of diseases of the liver and spleen.—H. C. Moffitt.

#### Tuesday, November 18—Section on Surgery

Meeting held at the University of California Hospital.

1. Cholecystoduodenostomy.—indications and results.—Saxton Pope.
2. Retroperitoneal lymphatic cysts. (Report of one case.)—E. I. Bartlett.
3. Neurosurgical demonstrations.—H. C. Naffziger.
4. Foreign bodies removed from war wounds. (Exhibition of specimens.)—Alanson Weeks.

#### Tuesday, November 25—Section on Eye, Ear, Nose and Throat

1. Demonstration of case of coloboma of retina and choroid.—Kaspar Pischel.
2. The curability of catarrhal deafness with demonstration of instrument.—Philip Rice.
3. Local effects upon the eye of internal administration of atropin.—W. S. Franklin.

## TULARE COUNTY

The annual meeting of the Tulare County Medical Society was held at Visalia, Dec. 7.

After supper at Hotel Johnson, Dr. Emmett Rixford of San Francisco gave a most interesting address upon industrial accident work, based upon his own wide experience. This address was one of those offered local societies by the State Medical Society.

Following this address, the secretary was instructed to obtain another one of the speakers offered, for the January meeting and the following officers were elected for the ensuing year:

President, Dr. J. C. Paine, of Exeter; Vice-president, Dr. P. R. Walters, Dinuba; Secretary, Dr. A. W. Preston, Visalia; Censors: Dr. C. A. Tillotson, Dinuba, and Dr. C. M. White, Visalia.

## Hospital Service Department

### The Hospital Betterment Movement in California.

The Great War focused public interest upon hospitals, and one of the most important post-war reactions upon civil life is the enormous increase in hospitalization of the sick. With this reaction there has developed not only a keen interest in hospitals, but an intelligent and earnest desire to know more about hospitals and their methods of operation. Even the intelligent layman no longer looks upon the hospital as a hotel for the sick, and the time is not far distant when institutions of this class will find it desirable to enter a broader and more useful field of community service.

The war taught millions of our citizens that hospitals not only were places to go to get well when ill, but that they should be used as medical survey centers to find out what one's health hazards were before the manifestations of illness are felt. They also learned of the broader influence of hospitals as the centers of medical thought and action, not only as applied to the prevention and cure of disease in the individual, but to groups, communities, nations and to the world. They learned that disease itself may be physical, social or mental, and they saw striking examples of both preventions and cures emanate from hospital centers.

Much of all this is coming back to civil life in diverse forms and countless plans of application, and out of all these must come the new impetus and stronger stride in the development, progress and efficiency of hospitals.

### What Is a Hospital?

The minimum requirement for a modern hospital is that it shall be an institution constructed, equipped, organized and personelled to supply all the complex requirements of modern medicine, both preventive and curative, whether physical, social or mental, and at the same time to constantly train new workers in all of the many special fields covered by its activities.

It is the combined school and workshop of modern medicine—a community health center. In fulfilling these functions an efficient hospital is the most complicated of all workshops. The material upon which it works is delicate, infinite in



variety and priceless in value; the implements are numerous, complex, dangerous and expensive; the workmen must be master craftsmen of more than a score of specialties, and they must work tirelessly and always at their best. In no other shop are the hazards so great, the work so trying, the hours so long and uncertain or the financial remuneration so small.

This complexity in activities must be perfectly co-ordinated and synchronized, and it must be so every minute of each twenty-four hours—always. The slightest mistake in judging living material, in the use of an implement or in the judgment or dexterity of the workman may cause disaster.

Furthermore, the hospital must be a training theatre for apprentices in all of its specialties as well as all others required to bring the complex demands of modern medicine to the patient. Not only should the hospital make all of its complex machinery and its great variety of personnel available for service within its walls, but it should be the center—the clearing house—for all health activities of the community within which it is located.

### Three Fundamental Errors.

When examined in the light of such comprehensive definition, many hospitals show many shortcomings. These shortcomings vary greatly both in variety and degree. They depend largely upon three fundamental errors in conception: One, that the buildings and surroundings are the most essential qualifications of a hospital; another, that individualism may take precedence over the requirements of organization, and lastly, that hospitals may pay large returns upon investments and still retain public confidence and support.

Of course, a fine building properly located and equipped for efficient economical service is exceedingly desirable, but it should be valued as the capstone of a fine hospital plant and not as a primary requisite. Vast sums of money have been, and now are being, invested in hospitals everywhere—including California—that are architectural monstrosities, financial failures and community service misfits to such an extent that they remind one of a deserted department store in the outskirts of a deflated boomtown.

### An Imposing Structure.

Upon one of the recent survey trips of the Committee on Hospital Betterment, of the League for the Conservation of Public Health, a new \$300,000 hospital was pointed out with civic pride as the latest acquisition of a rich California community. As a return for all this money the community had rather poorly designed space for some 90 patients. The kitchens were ample for a 2,000 bed hospital; the power plant sufficient for 1,000 beds, and even with this they used live steam for heating and bought electricity, which they could make practically without cost. The dining rooms and service stations for patients upstairs were placed as far as possible away from the kitchens, and to be sure that better service might not be had by some future arrangement, the laundry was located between the kitchens and dining rooms. For fear the laundry might be useful, the linen, repair and work rooms were placed across the corridor, where they also would be more difficult for elevator service. The operating rooms were beautifully done in rare and expensive material out of all keeping with reasonable requirements or the rest of the building. Cells for the noisy criminal insane were located in the basement without sound-proofing walls, to the constant annoyance of the sick located above in wards which were made out of left over space and defectively designed. This hospital has no X-ray plant; practically no laboratory; exceedingly poor record system; is deficient in a number of essentials and, of course, has little

of the attractive, practical spirit of service which should be its obvious outstanding feature. The director of this hospital is a capable well-trained man and is doing all he can to convert a failure into success, despite heavy handicaps. The community might have had a fine hospital, giving splendid service to more people with less cost, had other things than an imposing building been the governing motives of those who designed this deranged structure.

### Lack of Organization.

The second great fundamental error is lack of organization; co-ordinated, complete organization of staff, officers and personnel in all departments. This in reality should be the first step taken when any new hospital is contemplated. It ought to be perfectly obvious that an institution rendering the complex service of a hospital cannot possibly render this service adequately in any other way than as the output of a most careful plan of organization. Too many hospitals lose sight of this essential in the early days of their existence, and as a result conditions grow up which make the proper organization later on exceedingly difficult. This statement applies equally well to staff and utility and other departments of the institution.

The third fundamental error is commonly found in the imperfectly outlined financial statements and creates erroneous impressions regarding the income and expenses of the hospital. The false hopes that these deluding and alluring statements arouse invariably lead to increasing difficulties.

There are too many small hospitals of from five to seventy-five beds in various parts of the country that are devoted exclusively to the care of paying patients. They do not serve a satisfactory purpose in their local communities and they do not add to the progress of medical science or public health.

### The Hospital Betterment Movement (So-called Hospital Standardization).

There are many other shortcomings regarding hospitals as they exist today in addition to the few mentioned above, and out of all this, taken in connection with the desire for better things, has grown a movement for the improvement of hospitals. This movement, as a matter of fact, was started some fifteen years ago by the American Medical Association, and has been kept up in a desultory sort of way by a number of national, state and local organizations over all the intervening years. More recently the movement has been given a great impetus as an outgrowth of the war, and there are now some fifteen national associations alone working on various phases of this subject. Unfortunately, most of them are concerned primarily with one phase of the betterment movement alone and little progress can be made in such complex machines when considered in this way. Realizing this situation, there has been developed during the last few months the American Conference on Hospital Service, which in reality is a council of all of the national bodies interested in this subject, intended to harmonize their various activities.

We are fortunate in California in having the activities of several of the most important of the local and national agencies centralized in one body—The League For the Conservation of Public Health. The League Committee on Hospital Betterment, consisting of Dr. W. E. Musgrave, Chairman, Drs. William Ophuls, George Whipple, Dudley Fulton and Stanley P. Black, in undertaking its work assumed at the outset that any hospital betterment calculated to secure constantly increasing good results must be a constructive growing movement in which so-called standardization, if it were to come at all, was not the be-



ginning but the end result of persistent well directed effort. The committee has organized its work to consist of three distinct steps: First, to find out the problem, or, in other words, a survey of conditions as they are, a comprehensive systematic survey of each hospital of the State, with a written report of the findings based upon complete and personal inspection by men familiar with every phase of hospital problems. The second step of development is the establishment of a hospital survey section, a follow-up service as it were, which, through continuously applied sympathetic effort, may be utilized by the hospitals to correct for themselves as many of their shortcomings as possible; this service always to be available for the organization of new hospitals, the correction of shortcomings in existing hospitals, and when necessary, to furnish expert personal assistance on the ground.

The third and final division of the Section's work is that of classification of hospitals, the establishing of a membership list of acceptable institutions, and disregarding altogether those who are unable to reach the minimum requirements of good service and standard of good service in their communities.

The employment of the three methods suggested above, we are encouraged to believe, will lead to constant improvement in the hospital situation, so that all hospitals worthy of the name will have an earnest desire and make an earnest effort to become accredited members of the hospital association.

Each of these three phases of the work will be dealt with in subsequent articles.

## Clinical Department

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 1. November 19, 1915. Mexican. Age 8 years. No. 10310.

**Complaint:** Jaundice.

**Family History:** Father dead at the age of 30 (8 years ago) of "stomach trouble." No history of jaundice. One paternal uncle dead of "jaundice." Otherwise negative.

**Past History:** A seven-months' premature infant. Extremely small, weak, frequently ill during first 3 years of life. Development delayed. Subject to upper respiratory infections with pneumonia at the age of  $4\frac{3}{4}$  years. Frequent gastrointestinal upsets, but no previous jaundice. History of measles, mumps and pertussis.

**Present Illness:** Two weeks' duration with the first symptom scleral and skin icterus, followed by epistaxis, slight chill, epigastric distress, and a diarrhoea of offensive, yellowish, sometimes white stools. There was no vomiting or fever. The jaundice has been deepening progressively and the urine has become dark, yellow or green. The subjective signs have been very slight. There was no history of acute infection and no unusual indiscretion in diet.

**Physical Examination:** Fairly well developed and nourished, asymmetrical head, skin and sclerae deeply jaundiced, carious, rachitic teeth; cryptic, infected, enlarged tonsils, coated tongue, injected gums, foul breath. There was a slight granular conjunctivitis.

**Chest:** Dilated superficial venules. Otherwise negative.

**Heart:** Evidence of slight hypertrophy and chronic mitral regurgitation, well compensated.

**Lungs:** Negative except for evidence of tracheo-bronchial glandular enlargement.

**Abdomen:** Protuberant, soft, bulging in right hypochondrium and epigastrium.

Liver dullness from 4th space to 5 cm. below costal margin in nipple line.

**Liver:** Palpable, smooth, firm, not pulsating or tender, 6 cm. below costal margin in nipple line, 7 cm. in anterior axillary line, 10 cm. in mid-line with notch distinctly felt just above umbilicus, slightly to the right.

**Spleen:** Palpable 2 cm. below costal margin in nipple line, extending under edge of liver; both freely movable. No caput medusae or other evidence of venous block.

Examination otherwise negative.



**Laboratory Examinations:** Von Pirquet, Wassermann in the blood serum, blood cultures and urine culture negative. Nose and throat cultures show staphylococci and streptococci predominant; negative for Klebs-Löffler bacilli.

**Urine:** Large trace of albumen (0.3%). Bile +++, urobilinogen ++. Many hyaline and granular casts, occasional r. b. c.

**Blood:** Hb. 75%, R. B. C. 4,328,000, W. B. C. 15,400, Polys. 57%, E. 0%, B. 1%, Lymphocytes 29%, Large Monos 13%—central pallor, small amount of basophilic granulation.

**Stool:** Foul, grey, pasty, with mucus. Blood—negative. Fat +++, Bile 0, Urobilin +.

**Temperature:** 37.6, Pulse 88, Respiration 30.

**Diagnosis:** Acute Intestinal Indigestion with jaundice. Secondary, Chronic Tonsillitis with hypertrophy, Chronic Endocarditis (mitral), Tracheo-Bronchial glandular enlargement, Hepatic enlargement Splenic Tumor, Toxic Nephritis, Granular Conjunctivitis.

**Discussion and Treatment:** Bile aids the emulsification of fats, increases the fat-splitting properties of the pancreatic juice eight or more times (due to the cholic acid element) and also increases the solubility of the soaps. With a shutting off of bile, therefore, from the duodenum, the metabolism of fats is most seriously interfered with.

In a mechanical way, sugar has also been found to cause trouble in these cases. This is due, in all probability, to the increased growth of fermentative bacteria in the upper intestine and possibly an added inflammation of the duodenum. Starch, however, because of its slower liberation, does not cause this danger to the same extent.

Constipation or diarrhoea are encountered. The latter is due to the secondary intestinal indigestion following before the stagnation and decomposition of the fats, with the resultant irritation of the mucus membrane.

The etiology is to a certain extent obscure, but on account of the sudden onset, usually with fever, an infectious origin is to be suspected. The possibility of a relation to the spirochaetal jaundice of Weil is now being considered. The usual theory is one of blocking due to more or less inflammation and swelling of the common duct generally secondary to inflammation in the duodenum, which in turn may be a sequela of a single gastritis, or the whole may be the result of an indigestion or infection and irritation from some deteriorated or toxin bearing food.

The treatment consists in an original catharsis usually with calomel, alkalies for their dissolving action on mucus, no food for twenty-four hours, then broths, junket, skimmed milk, beef juice, white of egg, toast, etc., in a strictly fat free, sugar free diet. Confinement to bed during the acute period, warmth to the abdomen, and frequent baths are recommended. The addition of fats must be made slowly when convalescence has begun.

In regard to catharsis, calomel has always been the drug of choice, the oily purgatives being judged harmful on account of their fat content. It has been recently demonstrated, however, that calomel, phenolphthalein, etc., cause an active irritation of the urinary and digestive tract, evidenced frequently by blood in the urine and feces. It is therefore a question whether one of the bland laxatives such as cascara would not be preferable.

It is wise to begin with lean meat and simple cereals, followed by orange juice and green vegetables. It is advised to "always wait longer than seems necessary before increasing the diet."

The danger of fat is readily seen when reference is made to the role of bile in the metabolism of fat. This is evidenced by the great preponderance of the soaps in the stools. The presence and amount of urobilinogen (Ehrlich's Test) in the stool serves as a ready clue to the degree of block and as a guide to the progress of the case.

In accordance with these principles, this patient was confined to bed for a period of ten days, with a primary purgation by means of calomel and restriction to a fat free, approximately sugar free diet. By that time the stools were showing coloring matter, and the urine had practically cleared of bile. The diet was then gradually enlarged to include meats, cereals and vegetables, and the patient was allowed out of bed for increasing periods each day, until after two and one-half weeks' residence he was up most of the time. The jaundice faded very slowly, but had practically disappeared on discharge, one month after entry, although the liver was still palpable three centimeters below the costal border. At no time was a temperature recorded, since his entrance was two weeks after the onset of symptoms and the acute stage had passed. This slow clearing of the skin, and diminution in size of the liver is usually encountered in these cases, although subjectively the patient feels perfectly well.

The patient's teeth were placed in a healthy condition, and an adeno-tonsillectomy performed, thus removing at least two foci of infection.

He was discharged in good condition, on a practically normal diet, with all symptoms and signs of the acute condition regressing satisfactorily.

## State Board of Medical Examiners

The tax for any year is payable prior to January 1st of each year.

The tax is payable for the right to practice for any portion of the year and is not payable upon the installment plan.

Upon March 2nd (leap year, March 1st) the tax becomes delinquent, the name is eliminated from the directory and the possessor of such license loses the right to practice in California.

The license will be restored upon the payment of a registration fee of \$10.

An applicant obtaining a certificate in any year is liable for the \$2 tax; if such certificate is granted between January 1st and March 2nd and the licentiate neglects to pay the tax before March 2nd the penalty of \$10 is imposed.

If a certificate is granted between March 2nd and December 31 and the licentiate neglects to pay the tax the penalty is not imposed but the name of the licentiate will not appear in the directory for that year. On January 1st succeeding the date of the certificate so issued, an additional \$2 payment is due for the current year.

Commissioned medical officers in the U. S. army, navy, marine hospital or public health service continuously in the discharge of official duty are exempt from the payment of the tax.

A certificate holder who entered the service of the United States army, etc., and was in the discharge of his official duty between January 1st and March 2nd and remained as such commissioned officer for the balance of such year is not liable for the tax; if such tax was paid it will be refunded upon application.

A certificate holder who entered the service of the United States army, etc., and was in the discharge of his official duty between January 1st and March 2nd, who paid his tax and was discharged before the end of such year is not entitled to a refund.

A certificate holder who entered the service of the United States army, etc., and was in the discharge of his official duties between January 1st and March 2nd, and discharged before the end of the year who did not pay his tax prior to March 2nd but subsequently paid the \$10 penalty is entitled to a refund of \$8.

A certificate holder who was commissioned in the U. S. army, etc., and was in the discharge of his official duty subsequent to March 1st of any year who paid his tax for such year is not entitled to a refund.

Any certificate holder commissioned as aforesaid, subsequent to March 1st of any year, in the discharge of his official duty, who did not pay his tax and did not pay the penalty, must pay \$10.

A student who was drafted and later received a certificate, after a successful examination and commissioned as aforesaid will not be required to pay either the tax or the penalty for the period of time up to the date of his discharge, but will be required to pay the \$2 tax for the balance of the period from the date of discharge to the end of the year. If such licentiate was discharged within the sixty days from January 1st to March 1st, and neglected to pay such tax before March 2nd, then such licentiate would be liable for the penalty of \$10.

The date of the issuance or receipt of commission will not be accepted as the beginning of any period of exemption but the date upon which such licentiate actually reported for duty if in his home city or county, otherwise the date upon which licentiate left his home under orders to report for duty.



## Post-Graduate Schedule

### UNIVERSITY HOSPITAL.

Regular rounds in the Children's Wards of the University of California Hospital are made by Doctor Lucas on Monday, Wednesday and Friday mornings from 9:30 to 11:30. Visiting physicians are always welcome.

### UNIVERSITY OF CALIFORNIA SAN FRANCISCO

Professor George M. Stratton of the University of California is to conduct in San Francisco, beginning in January, a series of lectures on Psychology and Health, which should be of decided interest to the medical profession. Dr. Stratton is Professor of Psychology at the University of California and the lectures he will give will be along the lines of a series of talks he gave to a group of Oakland physicians and surgeons. The lectures will be given in the Emanu-El auditorium, 1337 Sutter Street, in San Francisco on successive Friday nights, beginning January 16, 1920.

Professor Stratton's course will include six lectures on modern aspects of the relation of psychology to the principles of health and the practice of medicine. Diseases of the mind, insanity, hypnotism, multiple personality and other points will be considered. The lectures will be addressed not only to the medical profession, but to the general public, and while they will be scientific in essence, they will not be technical in character.

The dates and subjects of the individual lectures follow:

January 9—"Emotions in Health and Sickness"—The use of Psychology in the care of the body. In medical education. Influence of mind on body, and of body on mind. Psychological work with aviators. Shell shock and kindred phenomena. The influence of the emotions.

January 16—"Multiple Personality"—Forms of mental disturbance. "Double" or "alternating" personality. Their general character and connection with hysteria. Dissociation, its meaning and importance.

January 23—"Hypnotism and the Subconscious"—History of hypnotism. Work of Braid and his predecessors. Character of hypnotism. Evidence for subconscious mental phenomena. Automatic writing and speech.

January 30—"Mental Healing. Its Methods and Results"—History of Psychotherapy. Means employed. Results with different forms of disease. Hypnotism in surgery.

February 6—"Psychoanalysis"—The work of Freud and others. Complexes, repressions, and other features. Interpretation of dreams. Freudian treatment of diseases. Value and defects of the method.

February 13—"Mental Hygiene"—Insanity. Its causes. Defective intelligence, especially in children. Its connection with juvenile delinquency and dependency. Binet tests, and others. Prevention of insanity and feeble-mindedness.

Persons desiring to attend these lectures may secure course tickets at the San Francisco office of University Extension, 140 Kearny street, or at room 301 California Hall, Berkeley. Tickets for the course and single admissions may also be secured at the door on dates of lectures.

### SAN FRANCISCO POLYCLINIC.

#### THIRD COURSE.

From Jan. 5 to Jan. 28, 1920.

#### ANONYMOUS PODIATRY

Gradually, through societies of these men and State laws requiring examinations for persons desiring to practice, chiropody has grown from a trade to a scientific branch of medicine.

In some States it is anonymous with the term podiatry. From a Catalog.

#### Monday, January 5.

- 10 a. m. Recent Advances in Medicine: Relation of the Ductless Glands to Rhachitis. .... Dr. Sanford Blum  
11 a. m. Diagnosis of Rectal Cancer. .... Dr. Alfred J. Zobel

#### Tuesday, January 6.

- 10 a. m. Diagnosis of Accessory Sinus Disease of the Nose. .... Dr. Cullen F. Welty  
11 a. m. Surgery of Nerves. .... Dr. Sterling Bunnell

#### Wednesday, January 7.

- 10 a. m. Surgical Treatment of Pyloric Stenosis in Infants. .... Dr. S. Nicholas Jacobs  
11 a. m. Cystocele. .... Dr. F. B. Carpenter

#### Saturday, January 10.

- 10 a. m. Medical and Surgical Treatment of Hypertrophy of the Prostate. .... Dr. Wm. E. Stevens  
11 a. m. Pyelitis. .... Dr. Samuel Goldman

#### Monday, January 12.

- 10 a. m. Placenta Previa. .... Dr. Dale L. Martin  
11 a. m. Muscular Dystrophies. .... Dr. Otto G. Freyermuth

#### Tuesday, January 13.

- 10 a. m. Appendicitis in Children. .... Dr. Burt S. Stevens  
11 a. m. Differential Diagnosis of Disease of the Middle Ear. .... Dr. R. Pietrafesa

#### Wednesday, January 14.

- 10 a. m. Recent Advances in Medicine: Focal Infections of the Naso-Pharynx. .... Dr. Sanford Blum  
11 a. m. Surgery of Blood Vessels. .... Dr. Sterling Bunnell

#### Saturday, January 17.

- 10 a. m. Treatment of Malignant Tumors of the Breast. .... Dr. H. A. L. Rykogel  
11 a. m. Addison's Disease. .... Dr. H. D'Arcy Power

#### Monday, January 19.

- 10 a. m. Relation of Illumination to Visual Efficiency. .... Dr. H. A. Brown  
11 a. m. Tubercular Adonitis. .... Dr. Mary Mentzer

#### Tuesday, January 20.

- 10 a. m. Surgical Treatment of Empyema. .... Dr. S. Nicholas Jacobs  
11 a. m. Brachial Plexus Neuritis. .... Dr. Otto G. Freyermuth

#### Wednesday, January 21.

- 10 a. m. Treatment of Benign Tumors of the Breast. .... Dr. H. A. L. Rykogel  
11 a. m. Value of Serial Radiographs in Diagnosis of Gastro-lutestinal Conditions. .... Dr. Ferdinand Freytag

#### Saturday, January 24.

- 10 a. m. Minor Manifestations of Thyroid Disturbance. .... Dr. H. D'Arcy Power  
11 a. m. Diagnostic Methods of Proctology. .... Dr. Alfred J. Zobel

#### Monday, January 26.

- 10 a. m. Stomach Surgery. .... Dr. Burt S. Stevens  
11 a. m. Diabetes Mellitus. .... Dr. Mary Mentzer

#### Tuesday, January 27.

- 10 a. m. Eclampsia. .... Dr. Dale L. Martin  
11 a. m. Lithiasis of the Urinary Tract. .... Dr. Wm. S. Stevens

#### Wednesday, January 28.

- 10 a. m. The Eyes of the Child. .... Dr. H. A. Brown  
11 a. m. Diagnosis and Treatment of Some Common Genito-Urinary Conditions. .... Dr. Samuel Goldman

#### Saturday, January 31.

- 10 a. m. The Tuning Fork in Differential Diagnosis of Operative Lesions. .... Dr. Cullen F. Welty  
11 a. m. Radiographic Determination of Kidney Stones. .... Dr. Ferdinand F. Freytag



## OBITUARY



THOMAS DE HAVEN BLODGETT

Dr. Thomas De Haven Blodgett of Tulare, Tulare County, California, died on November 10th, 1919, from pyemia associated with an extensive purulent teno-synovitis of the left forearm and hand following an accidental infection of his left thumb acquired during the process of lancing a felon.

He was born in Downing Station, Schuyler County, Missouri, on January 17, 1867, and was but three years old when his family moved to Shasta County in this State. He attended schools and eventually taught in them there until he entered Cooper Medical College and graduated here in 1894. After serving an internship at St. Luke's Hospital, San Francisco, he entered practice at Tulare in 1895 with Dr. Henry Pace and continued actively there until the time of his death, having associated with him for the last nine years, Dr. R. N. Fuller.

As a man and a citizen his integrity was beyond question, always helpful, uplifting and constructive, both as to individuals and his community.

As a physician and surgeon he has filled a place, which could have been filled only with great difficulty and effort by any one man, and has done a life's work of which any man could be proud. Twenty-five years ago Tulare was truly fortunate in having a physician come to it of Dr. Blodgett's capacity and resource. Practically his only diversion was in the day's routine, and many a happy hour of good cheer did he have in it, having inherently, and acquired to a great degree, what Sir William Osler calls "The Art of Detachment."

The regard with which he was held by his townspeople is best shown by quotations respectively from the "Tulare Register" and the "Tulare Advance:" It has fallen to the lot of few men

to be more highly esteemed and better loved in the community wherein they dwelt than was Dr. Blodgett. \* \* \* \* He was a tireless worker, conscientious in all the manifold relations with individuals pertaining to his profession, honest in his practice and a sterling citizen \* \* \* \* He will be sorely missed in this community where he has lived for a quarter of a century. \* \* \* \*

"He was a loyal friend to his patients and Tulare. It would be hard to conceive a man who could be less spared from the community for he participated in its affairs both as a surgeon and citizen, and gave the best that was in him in both instances."

Dr. Blodgett was never married, but was survived by one sister, Mrs. C. C. Garner of Lodi, and three brothers, Dr. J. N. Blodgett of Lodi, president of the State Board of Dental Examiners; W. O. Blodgett of Redding and W. S. Blodgett of Acampo. He was a member of the American Medical Association, the California State Medical Society and one-time president of the Tulare County Medical Society, district surgeon for the Southern Pacific Railroad and a member of the Pacific Association of Railway Surgeons.

Dr. Blodgett was also a Knight Templar, Visalia Commandery, a Mystic Shriner, Islam Temple, and a member of Visalia Lodge No. 1298, B. P. O. E.

Masonic funeral services were held in Tulare and he was interred at Lodi, California, November 13th, 1919.

## New Members

Stowell, John M., San Francisco.  
Harding-Mason, John, San Francisco.  
Bailey, Nelson B., Alameda.  
Downing, Samuel R., Alameda.  
Boone, Wm. R., Alameda.  
Kane, Louis M., Los Angeles.  
Whiteway, Harold M., Los Angeles.  
Shumaker, E. K., Los Angeles.  
Ammann, Francis X., Los Angeles.  
Kempff, Louis A., Los Angeles.  
Boyer, John I., Los Angeles.  
Constantine, K. W., San Diego.  
Potter, Marjory M., San Diego.  
Stealy, Clair L., San Diego.  
Eytinge, E. J., Redlands.  
Dickson, G. G., Ione.  
Brendel, F. P., Sacramento.  
Simpson, B. R., Sacramento.

## Transferred

Avery, Ralph L., from Ventura Co. to Los Angeles Co.  
Reardon, F. B., from Stanislaus Co. to Sacramento Co.  
Schoff, Chas. E., from Yolo Co. to Sacramento Co.  
Anderton, H. S., from San Mateo Co. to San Diego Co.  
Owen, Gilbert R., from San Bernardino Co. to Los Angeles Co.

## Deaths

Fish, Chas. Withrop. Died in Los Angeles, November 25, 1919. Was a graduate of the Medical Department, Western Reserve University, Ohio, 1884. Licensed in California 1885. Was a member of the Medical Society, State of California.

Lantz, Paul R. A resident of Oakland. Died in San Francisco, December 9, 1919. Was a graduate of University of California, 1899. Licensed 1901.

Mays, Wm. Henry. Died in Newman, California, November 30, 1919. Was a graduate of the University of California, 1873. Licensed to practice in 1877.

**VERY IMPORTANT** — Remember, that the place of the annual meeting of the Medical Society of the State of California has been changed from Del Monte to Santa Barbara, and will occur on the original dates selected, May 11th, 12th and 13th. Make your reservations for rooms with the Hotel Ambassador now, as the meeting promises to be well attended, and you will then be sure of accommodations.



### STATE BUREAU OF CHILD HYGIENE.

The Bureau of Child Hygiene of the State Board of Health became an entity following the passage of a law at the last legislature, but the director of this bureau was not appointed until the State Civil Service Commission certified physicians who had passed an examination. As a result of this examination, Dr. Ethel Watters was appointed director on December 6, 1919. In this appointment, the new bureau has acquired a director of unusually fine training, capacity and personality. Dr. Watters is a graduate of Santa Cruz high school, Stanford University, and Johns Hopkins Medical School. Her interne service was spent at the Children's Hospital, San Francisco. For three years she has had charge of the juvenile court children in San Francisco. For two years past, she has been sanitarian of the Social Hygiene Bureau of the State Board of Health.

The personnel of the new bureau is limited to one physician and an assistant who may be a public health nurse; as yet, this assistant has not been chosen. Although all matters pertaining to child hygiene are of interest to the bureau, it will be the policy, during the coming year, to limit the work to prenatal care, infant welfare and hygiene of the child under six years.

Maternity centers are much needed in some parts of the state, and already, such stations are rapidly being formed. Prenatal care and well-baby conferences are the features of such centers. No treatment will be given, but if it is necessary, the patient will be referred to the family physician or to a clinic.

The co-operation of the physicians in the state with the Children's Year Committee resulted in such a large amount of good that the Bureau of Child Hygiene has no hesitancy in appealing again to the medical profession. It is only through the combined efforts of the public health nurse and the local physician that mothers may be taught simple rules of hygiene, and proper regulation of the lives of their children. Each one of these new centers will require about one hour a week from some physician, and if several physicians are willing to examine the children it will mean a further division of the task.

The Bureau of Child Hygiene will prepare exhibits for the temporary use of local communities; it will print and distribute pamphlets, and it will possess lantern slides and moving pictures for free circulation. Recently, the federal Children's Bureau published the minimum standards for the public protection of the health of children and mothers. These standards were devised after the conferences held in May and June, 1919. It will be the effort of the Child Hygiene Bureau to uphold these standards and to make them the basis of the child welfare program of California.

The establishment of this bureau and the appointment of its first director are signal advance steps in the public health program of the state. In another column are published the minimum standards for the public protection of the health of children and mothers, as promulgated by the Children's Bureau.

### CALIFORNIA'S MINERAL SPRINGS.

Of all therapeutic methods in use by the medical profession few, doubtless, can claim the antiquity, and the unreserved commendation of immemorial use, so thoroughly as baths and the use of mineral springs both internally and externally. Even before the time of the great development of hydrology by the Romans, it is recorded that Naaman was cured of his leprosy by bathing in the holy waters of the Jordan. The countless millions who to-day hold bathing in the dark waters of the Ganges to serve for physical as well as spiritual healing, are but witnesses to some instinctive empiric idea of benefit to be derived from bathing in prescribed waters. On reflection, it is astonishing how prominent in our modern life is the position held by bathing as a ceremonial rite of religion and of health alike. From baptism to the allegorical crossing of Jordan's last waters, from bathing for cleanliness to the therapeutic use of chemical springs, the idea of health is uppermost.

Small wonder that mineral springs have received, therefore, the attention bestowed on them in England and the continent of Europe, and great wonder, indeed, that in these United States they have received comparatively so little attention. California, the health state of the Union, with its enormous geologic diversity, could be expected to prove remarkably rich in its supply of mineral springs. And such is the case. It is well worth attention from the medical profession to appreciate the unusual therapeutic advantages available naturally in California and such appreciation will undoubtedly lead to their proper exploitation and development.

A recent bulletin of the University of Southern California is devoted to a most readable article by Professor G. E. Bailey on some hot springs of Southern California. Being a geologist, Professor Bailey describes with authority the natural resources of the state in mineral springs. He states that "California has more natural springs of commercial value than any other equal area in the world." He recommends that some of these are of such therapeutic value that they should be taken over by the government as has been done in many similar instances in England and France.

Professor Bailey explains that hot springs are related to deep fault lines which allow waters to escape from great depths in the earth and make their way to the lower temperature and pressure of the surface. One of the major fault lines is the so-called Andreas fault, starting from Tejon Pass and running northward straight to San Francisco and thence to Cape Mendocino, and again starting from Tejon Pass and running southward along the Sierra Madre range to Cajon Pass, Arrowhead, San Geronio Pass and the Salton Sea. A slip in this fault caused the great earthquake of 1906. A similar fault line follows the eastern base of the high Sierras. Shorter lines are found parallel and secondary to these. Short major lines also follow the Klamath and Cascade ranges and Mount Lassen. Practically all of the



hot springs of the state are related to these fault lines.

Waters rising from a fault in igneous rock, are apt to be virgin or juvenile waters which see the light of day for the first time in untold ages. Such springs are unaffected by rainfall, are very apt to be radio-active and are apt to contain rare and beneficial elements not found in surface waters. Springs which start from a fault and then pass through sedimentary rock are more apt to be loaded with minerals from these sediments. Juvenile waters may, as in the case of the Carlsbad springs, issue from the "fundamental magma" and bring new additions to the earth's surface. There is reason for the belief that many Californian hot springs are magmatic in origin and therefore of peculiar possibilities in content and therapeutic employment.

Commercial analyses are too apt to leave unmentioned or to list merely as "traces" the rarer elements which may in reality be the source of a spring's potency. The newer knowledge of radium and other emanations and radiations likewise shows the importance of an intelligent, and systematic study of the natural springs. The medical profession should lead in securing such adequate study for the springs of California and in the development of the wonderful therapeutic possibilities therein lying.

#### ANNUAL MEETING OF THE LEAGUE.

The third annual meeting of the League for the Conservation of Public Health was held in the Blue Room of the St. Francis Hotel, December 29th. A complete review of the comprehensive work of the League was given in a report by Dr. Charles D. McGettigan, Chairman of the Executive Committee.

Delegates from various sections of the State commented enthusiastically upon the effective work of the League and the Chairman's report was unanimously adopted.

From this report of the Executive Committee, we find that representatives of the League have been very busy during the past year, as they have traveled more than 50,000 miles through California in advancing the purposes to which the League is dedicated. That there was no lost motion, and that the good seed that was sown on the ground covered was growing sturdily was evidenced by abundant facts.

Following a review of the many pernicious measures that were successfully opposed by the League, and others that were successfully supported during the Forty-third session of the Legislature, the Chairman's report set forth the substantial progress made in the notable constructive work of the League.

"Among the performances of the League," the Executive report recites, "to which we point with particular pride is the service which we have inaugurated for the betterment of the hospitals of the State. The League's program comprehends a gradual improvement and development of the progressive hospitals of the State to accomplish

the maximum good for all. All hospitals of the State will be surveyed as rapidly as possible and the information filled and filed under the 58 headings of our Official Hospital Survey Report. A duplicate of these reports, covering each hospital, is sent to the American Medical Association.

"The comments that we have received from a number of hospitals already surveyed are uniformly encouraging and assuring. All acknowledge that they have advantageously followed the suggestions given at the time of survey and are eagerly seeking further guidance. It is through this practical follow-up service and continuous touch that the League will strengthen the imperfect hospitals and perfect the better ones."

The League is planning to hold this spring a State-wide Conference of the Hospitals of the State to discuss some of the hospital problems revealed by the survey that is being made under the direction of its Section for The Advancement of Medical Education and Science. The thoroughness of the important work of this Section is insured by the following personnel: Dr. W. E. Musgrave, Chairman, Dr. Wm. Ophuls, Dr. George Whipple, Dr. Stanley P. Black and Dr. Dudley Fulton.

That we are fortunate in California to have an independent organization to undertake the practical promotion of hospital service, unhampered by conflicting organizations, and encouraged by the cordial co-operation of all essential factors, is an opinion also shared by national leaders in the hospital betterment movement.

The aim of the League is to include only worthy institutions, whether large or small, in its Hospital membership, and thereby enlarge the service and advance the interests of those hospitals which are endeavoring to give the standard of service to which their particular communities are entitled.

It is not only the medical profession, which has too long endured the heavy handicap imposed by misfit methods of poor hospitals, that is welcoming the work of the League, but Chambers of Commerce and business organizations in several communities have enlisted the services of the League to develop hospital sentiment and make proposed new hospitals community service centers.

Another worthy enterprise of the League that is of interest not only to all the ethical members of the medical profession but to all the people of the State, is the strengthening of the Medical Practice Act. This work, it was declared, was making steady progress under the direction of Dr. Wm. Ophuls. A great number of helpful suggestions have been received by Dr. Ophuls from various doctors of California. After all the suggestions are received, the plan of the Chairman is to discuss them with those possessing particular information on the educational, administrative and enforcement features of the Medical Practice Act, so that the obscure portions of the present act may be clarified and the weak portions strengthened. Then the science and art of

medicine may be applied in California without handicaps that vitiate it and surrounded with safeguards without which it would be vicious.

It was pointed out that all these desirable things may be prepared and presented but to be effective they must be passed, and that the plenary power to formulate, build up or tear down the Medical Practice Act would be in the hands of the Legislature in 1921.

During 1920, however, the making of the Legislature is in the hands of the people. Eighty members of the Assembly and twenty members of the Senate will be elected this year. All were urged to take an active interest in selecting representatives who would not handicap health or prevent the progress of scientific medicine by thoughtless legislation.

"Ethical medical men who by their action or inaction place in power men who support measures that impede or imperil the progress of scientific medicine are untrue to themselves and enemies of their own household" was a paragraph of the Chairman's report that won instant applause.

"In order to assure ourselves and be able to assure the membership of the League that all the receipts and disbursements of the League are properly recorded and accounted for, we engaged an expert firm of accountants to make a complete audit of the books of the League." A full statement of the receipts of the League was given by County and the disbursements were set forth and analyzed under separate headings.

"That we have been able to do so much," said the Chairman, "on so little, covering such a wide field of activities, gives us ample assurance of the great work the League is destined to perform when adequate funds are furnished. With the achievements of the League in mind, the figures that our books disclose tell an eloquent story of devotion and efficiency. Any ethical doctor who can subscribe to the purposes of the League, and all representative doctors that believe in organized effort and concerted action for the common good, will co-operate with us."

The League during 1920 is called upon to conduct three State-wide campaigns in addition to its regular constructive work. An official League Bulletin will be issued to keep the membership in constant touch with these campaigns, and "to tell you what the League is trying to do for you and what the other fellow is trying to do to you."

The following new officers were unanimously elected:

Dr. Dudley A. Smith, President; Dr. Granville MacGowan, Vice-President; Drs. O. D. Hamlin, Saxton T. Pope and James W. Ward, Members of the Executive Committee; Drs. D. A. Beattie, Wm. Ellery Briggs, Paul M. Carrington, E. T. Dillon, W. W. Beckett, Saxton T. Pope and Ferdinand Stabel, Members of the Directorate.

#### A CITY DIVIDED AGAINST ITSELF.

The recent development in the municipal affairs of the city of Banning should not pass without editorial comment. It appears that Dr. John C. King for years has had a sanitarium in the confines of this unfortified town, and the conduct of this institution has been a credit to the profession, a boon to the sick, and a worthy addition to the town. But the city fathers of Banning took it upon themselves to pass an ordinance prohibiting any one from conducting a hospital for tuberculosis or other communicable disease within the city limits. To comply with this ordinance Dr. King prepared to move the sanitarium to a site without the city limits to an ample plot of ground selected for its location. At considerable expense the new institution was to be erected for the care of tuberculosis patients. With egregious short-sightedness and stupidity an injunction was served upon him in an effort to prevent the establishment of the hospital.

It would seem in this case that unwarranted and morbid superstition is at the bottom of the matter. We must assume that the members of the city council think that a tuberculosis sanitarium is a menace to public health. This is a stupidity which education alone can eradicate. They do not take into consideration for a moment the humanitarian factors involved in the problem. Let us therefore state, with a hope that it may reach their ears, that an institution of the type run by Dr. John C. King of Banning is a credit to any community; that it is absolutely devoid of danger to the public at large; that, on the contrary, it protects the public health and is of educational value; that it offers to those afflicted with tuberculosis one of the surest and best means of restoration to health. Such an institution should receive the support of the town of Banning both morally and financially.

#### MORE CHEERFUL NONSENSE.

From time to time the medical man's mind falls into periods of dull apathy and unprofitable ennui. He feels the impotency of his learning and gropes vainly in the darkness of the unknown to find the secret of the insoluble mysteries of life. It is like a burst of sunshine on a cloudy day when the following bit of wisdom falls upon his consciousness:

#### VITA SCIENCE—LESSON IV.

The tattvas are the nerve currents with motor in stomach. Samana is the nerve current which controls the functions of digestion, absorbs the food and distributes it all over the body.

Apana is the life current which throws out of the body things no longer required and manifests itself in organs of excretion, such as kidneys, epidermis, etc.

Jiva is the life current manifesting the one self appearing to be separated into different entities. The motor is in the Organs of Generation.

Vyana is the life current which circulates all over the body and keeps it in shape. Touch is the motor.

Udana is the life current governing the organs



of the remaining senses. Its manifestations causes the body to work or rest. Its motor is in the brain.

#### GOVERN OUR TATTVAS.

There are many nerves or main trunk lines in the body which can be fully governed by practice and will effect the entire system.

There are two main trunk lines and stations in the spinal column with which we will deal. One the positive current, Pingala, the other a negative current, Ida.

There is a hollow canal in the spinal column called Shushuma. At the lower end of this canal is a lotus or station in the shape of a triangle in which is stored or coiled the life energy called Kundalina.

It is through breathing that the Kundalina rises to do your bidding and without the breathing exercises it remains dormant, but by certain practices it can be opened and the currents of the nerves made to travel through it; you shall be released from Bondage by controlling your will power.

Slowly fill the lungs with good pure air, inhaling through the left nostril (Ida) and at the same time, after having made your mind a perfect blank, concentrate the mind on the nerve center, sending the Udana down the spinal column striking violently on the last plexus or Basic Lotus. Hold it here while you count nine then slowly draw the Udana out, counting nine, and send it through the right nostril (Pingala), sending it down through the left side of the ventricle (heart) to the Solar Plexus, and let it then go to the other organs of the body at will.

This "Vita Science" is promulgated by Dr. H. M. Farnum, C. Frances Farnum and Blanche L. Becker, and published in their invaluable book. It should be the "vade mecum" of the medical practitioner. Let him turn to it when the comic papers fail to stir his risibilities. Let him read as he runs, and be wise.

### Editorial Comment

In another column will be found various clippings and news notes showing some of the activities and difficulties of the State Board of Medical Examiners.

Manuscripts submitted for publication *must* be typewritten, double spaced, correctly spelled and punctuated, and properly capitalized. The editor has plenty of material on hand without wasting time on articles which do not meet these very elementary requirements.

Tropical pathology has received a momentous addition in the discovery by Noguchi of an organism which is probably the cause of yellow fever. This he has provisionally named *leptospira icteroides*. In morphology it closely resembles the *leptospira icterohemorrhagica*, the etiologic factor in Weil's infectious jaundice.

Apparently the doctors outside San Francisco and Los Angeles have no interest in seeing estab-

lished a Clinical Department in the Journal for presentation of short concise case reports from their actual practice. As the idea seems good, however, it is being followed out in a somewhat different way as will be found by turning to the Clinical Department which began last month and will appear in each issue this year.

Considerable attention has been directed in the past year to the nutritive value of the banana. Recent studies by Sugiura and Benedict<sup>1</sup> indicate that only minor additions are necessary to make the banana a complete balanced food. They find that growth, maintenance, reproduction and perfect milk production occur in albino rats on a diet of 83 per cent. banana, 16 per cent. casein, 0.5 per cent. yeast, and 0.5 per cent. protein-free milk. The protein-free milk supplies a substance necessary for proper milk production by the mother. This seems possibly to represent a new vitamin not found in yeast. Thus bananas and milk in proper proportion would seem to constitute a perfect food.

According to the Fresno Republican the official definition of chiropractic, as given by its founder, is "an illiterate and unintelligible jumble, obviously the production of an ignorant man, who can neither write nor think and does not know the sciences he professes to teach. Now comes something much more practical—the prospectus of the Los Angeles chiropractic college, announcing exactly what it has to offer. The main inducement put forward by this professional institution is that it requires no general education and very little special education before turning its graduates loose to make money.—The whole thing, in its appeal to its 'prospects' is frank, unabashed graft, with its emphasis on its lack of educational requirements, and on the quick and easy money to be made." That is the truth and we cannot improve on the truth.

The difficulties of the State Board of Medical Examiners in securing convictions for offenses against the Medical Practice Act are well illustrated in the matter of a recent case of a jury trial in Oakland of a Chinese herb doctor who admitted that he was unlicensed, and that he had been practicing medicine. The jury, in the face of the evidence, refused to bring in a verdict. It is time that citizens, all citizens, impress on their consciences that the first obligation of citizenship is jury duty, and that it devolves upon elected legislatures to make laws and on juries solely to determine if those laws have been violated. Juries must decide on the basis of facts presented and of the law as interpreted to them by the court. Too often these days do juries arrogate to themselves actions which do not pertain to the lawful status of jury duty. Too often is justice defeated, and the jury system itself imperiled, by such unwarranted conduct.

<sup>1</sup> J. Bio. Chem., Dec. 1919, p. 449.



## Special Articles

### BOTULISM\*

By ERNEST C. DICKSON, M. D., San Francisco.

The occurrence of several outbreaks of botulism within the past few months and particularly the prominence given in the press to two outbreaks which have occurred in the eastern states, has awakened active interest in the subject in all parts of the country. It is now generally accepted that botulism is a type of food poisoning which must be seriously considered by all who undertake the preservation of perishable foods, and it has become necessary to make a careful survey of the methods used in preserving foods to ascertain whether they will insure destruction of the spores of *Bacillus Botulinus* should they happen to be present in the raw material. Practically all the outbreaks which have occurred within recent years have been caused by the consumption of home-canned vegetables and fruits, but within the past two years there have been at least four instances in which commercially canned foods were undoubtedly at fault.

It is a point of considerable interest that although several outbreaks of botulism have been observed in different states, the great majority of outbreaks have occurred on the Pacific Coast. In all we have record of 58 outbreaks of poisoning of this type in America, 45 in which human beings were poisoned and 13 in which domestic animals or fowl were affected after eating discarded home-canned foods.<sup>1</sup>

Of these 58 outbreaks, 41 occurred in California, 5 in Oregon and Washington, and 3 which occurred in the eastern states were caused by the consumption of ripe olives which had been packed in California.

There have been, therefore, at least 49 recognized outbreaks of botulism in which the infecting organism has been definitely traced to the Pacific Coast, a fact which cannot be disregarded when selecting an area in which to study the natural habitat and biological characteristics of the *B. botulinus*.

There has been a considerable amount of discussion as to whether the food which is infected with *B. botulinus* and in which there is a potent toxin, shows sufficient evidence of spoilage to insure that it will be discarded by persons who are careful of what they eat. There is no doubt that food which contains the botulism toxin shows more or less marked evidence of spoilage and has a peculiar rancid or cheese-like odor which is in some cases extremely offensive. However, in several instances of which I have personal knowledge, the evidence of spoilage was so slight that even after smelling and tasting, the housewife, though recognizing it was not quite right,

decided that the food was fit for use. I am convinced that one must not depend upon marked evidence of spoilage as an indication of the presence of a potent toxin, but that all preserved food which shows the slightest sign of spoilage should be discarded without being even tasted. The housewife should depend upon her eye and sense of smell in determining whether food is fit for use, and when at all suspicious should not taste the suspected food to see whether it is good. There is a steadily growing list of women who have died of botulism because they tasted home-canned food which did not look or smell quite right.

Botulism as it occurs in human beings or in animals or in fowl is not an infection but is an intoxication. The *Bacillus botulinus* is a spore bearing anaerobic organism which grows well at room temperature and which in its growth in suitable medium produces a virulent toxin. The spores are extremely resistant to heat, so that if they are present on raw material which is being canned they are very apt to resist the heat which is applied to sterilize the food in the can or jar. If the spore survives the sterilizing process it finds an ideal place for growth in the hermetically sealed moist food within the can. It is the toxin which is produced within the container which causes the poisoning. The greater amount of evidence indicates that the bacteria themselves are not pathogenic and do not form more toxin after they have been taken into the gastro-intestinal tract with the food. The toxin is easily destroyed by heat, boiling the food for a very few minutes being sufficient, and there is no danger of poisoning of this type if canned food is boiled before it is eaten or even tasted. All the known outbreaks of botulism from canned goods have occurred when the food was tasted to see whether it was good, or was served uncooked, as salad, for instance, string beans or asparagus, as a relish, such as ripe olives, or as desert, such as apricots or pears.

The symptoms usually appear in from eighteen to thirty hours after the ingestion of the poisonous food, although they may appear in from four to eight hours. The earliest symptom is usually a sensation of languor and fatigue, but this is soon followed by characteristic disturbances of vision, blurring of vision, diplopia, and loss of accommodation. There is often early vertigo and incoordination of muscular movement. Dryness of the mouth and pharynx, a sensation of enlargement of the tongue and a peculiar sensation of constriction of the throat soon follow. There is marked inhibition on the serous salivary secretion, and the mucous portion is secreted in a thick, tenacious form which is removed from the pharynx with great difficulty. Speech soon becomes impaired and unintelligible, and there is difficulty and eventually inability to swallow. The patients suffer greatly from strangling spells induced by their attempts to swallow or to raise the thick mucus from the pharynx. There is rarely any acute gastro-intestinal disturbance, although there

\* From the Laboratory of Experimental Medicine, Stanford University Medical School.

<sup>1</sup> This does not include outbreaks of forage poisoning in which domestic animals died after eating infected fodder.

may be initial nausea, vomiting, and diarrhea. A characteristic feature of the intoxication is that there is obstinate constipation which may be so severe as to resist all efforts to induce evacuation of the bowels.

There is early blepharoptosis and mydriasis with loss of pupillary reaction to light, and occasionally there is paralysis of all the extrinsic muscles of the eye so that the eyeball remains fixed in the socket. Occasionally there is paralysis of the muscles supplied by the motor portion of the fifth and by the seventh cranial nerves, but this is more uncommon. There is loss of the pharyngeal reflex in the majority of cases. There is marked general muscular weakness, but there is no true paralysis of the skeletal muscles and the skeletal reflexes are not lost. True paralysis is apparently confined to the muscles which are supplied by the cranial motor nerves.

A striking feature of the botulinus intoxication is that there is no disturbance of mentality and that sensation remains intact. There may be some inhibition of the sense of taste, but this is probably chiefly if not entirely dependent upon the absence of the serous salivary secretion. There is rarely any disturbance of hearing. The disturbances of vision are entirely dependent upon the loss of function of the intrinsic muscles of the eyes, as the retina rarely shows any change. There may be initial headache and nausea, but there is otherwise rarely any pain.

The temperature is usually sub-normal; in fact, when fever occurs, one should be strongly suspicious of the onset of some intercurrent infection such as broncho-pneumonia. The pulse rate may be slower than normal at first, but it soon becomes rapid and the combination of a temperature of between 96 and 97 degrees F. with a pulse rate of over 130 is very striking.

The intoxication usually reaches its maximum severity in from four to eight days, and then, if the patient survives, gradually subsides. Convalescence is very slow and tedious. In fatal cases, death usually occurs in from four to eight days and it is seldom that persons who survive for ten days succumb unless some complication such as aspiration pneumonia ensues. Death usually occurs from cardiac or respiratory failure.

The mortality in the American outbreaks has been extremely high as compared with that in Europe, probably because only those in which some of the patients died have been recorded. Of 189 persons who are known to have been poisoned in this country 133 have died, a mortality of 70.4 per cent.

The high mortality is indication of the unsatisfactory results which are obtained by treatment. It should be borne in mind that in botulism we are dealing with an intoxication and not an infection, and that the amount of poison ingested is limited since no new toxin is formed within the body. The problem of therapy therefore resolves itself into one of elimination and supporting treatment.

It is important to wash out the stomach even

though the poisonous food has been eaten several days before, as there is early inhibition of stomach motility. Purgation should be induced if possible, preferably with magnesium sulphate or some similar saline, and the lower bowel should be frequently washed by enemata. Simple nourishing food should be given in sufficient quantities and a generous supply of water should be administered, but it should be remembered that on account of the loss of pharyngeal reflex and the frequent strangling spells when the patient attempts to swallow, there is constant danger of insufflation pneumonia. It is therefore advisable to administer food and laxatives by stomach tube and to give water by hypodermoclysis or by rectum. The Murphy drip has been found to be very satisfactory.

Stimulation should be given as required; strychnin probably being of value. Digitalin has been used extensively to combat cardiac failure, and pilocarpin may be used to relieve the dryness of the mouth and pharynx, although pilocarpin should be given with caution since the patient is unable to cough up fluid from the lungs if pulmonary edema is induced.

Specific antitoxin may be obtained and should be tried in every case although as yet its therapeutic value is not established. In laboratory experiments complete protection may be given if the antitoxin and toxin are administered simultaneously or nearly so, but the amount of clinical data available is still too small to enable us to draw any conclusions as to the actual therapeutic value in human cases. It has been demonstrated experimentally that prophylactic injections of antitoxin are of value for laboratory animals and it is undoubtedly true that the same is the case in human beings. There is therefore positive indication for prophylactic administration of antitoxin to all persons who are known to have eaten food which has caused this type of illness in other persons or in domestic animals or fowl.

It should be remembered that the known strains of *B. botulinus* fall into two groups which are distinct in so far as their toxin-antitoxin relationship are concerned; in other words there are two types of *B. botulinus*, A and B, the toxin of each of which produces an antitoxin which will protect against the toxin of all analogous strains but which has no protective action against the toxin of the heterologous strains. For this reason it is essential that if a single antitoxin is administered, it should be a polyvalent serum, although a mixture of type A and type B antitoxin should be of equal value. A polyvalent serum is not as yet available but there is a moderate amount of available type A and type B serums which have been prepared for experimental purposes.

The pathology of botulism is interesting in that there is a characteristic cellular thrombosis in the blood vessels of various portions of the body. There is also marked general hyperemia, and frequently numerous hemorrhages are seen, particularly in the brains and lungs. Broncho-pneumonia is frequently found, being the result of the strang-



ling spells and the pharyngeal and laryngeal paralysis. The exact method in which the toxin acts upon the tissues is, however, unknown.

As stated in a previous paragraph, the problem of botulism is essentially one which is of interest to California. The greatest number of cases have occurred in this state, and both home-canned foods and commercially canned foods which were packed in California have been shown to be the cause of the poisoning. It must be emphasized that the relative number of outbreaks of poisoning is extremely small, and the vast majority of containers of canned food, whether home-canned or commercially canned, are free from any danger. The fact that poisoning may occur, however, must be recognized, and housewives should be instructed of the possible danger. They should be told that it is unsafe to eat or even taste any preserved food which shows the slightest sign of spoilage, and that all spoiled food should be discarded in such a way that neither human beings nor domestic animals or fowl may have access to it. They should also know that the toxin of *B. botulinus* is easily destroyed by heating and that if preserved food is boiled after it is removed from the container and before it is eaten or even tasted, all danger of food poisoning of this type will be removed.

It is not necessary or advisable that the consumption of preserved foods should be curtailed, or that the home-canning of perishable foods should be discontinued. It is necessary, however, that the problem of botulism be looked upon as one of importance to the public health, and it should be the duty of every physician in the state to aid in preventing outbreaks by instructing his patients concerning the possible danger of poisoning and the way in which it can be prevented.

Stanford University Medical School.

### THE RADIOGRAPHIC STUDY OF THE ABDOMINAL ORGANS AFTER INFLATION OF THE PERITONEAL CAVITY.\*

By WALTER C. ALVAREZ, M. D., San Francisco.

As is well known, any part of the body may be made visible under the Roentgen rays if we can only make its degree of resistance to the passage of those rays different from that of the surrounding tissues. We may make it more resistant by injecting suspensions of barium or we may make it less resistant by injecting air. Many have used air or oxygen in radiographing the bladder, colon (1), stomach (2), and knee-joints (3). Recently oxygen has been used to

outline the cerebral sinuses. For a number of years the German radiologists have been experimenting with the injection of air or oxygen into the peritoneal cavity. Lorey (4) in 1912 seems to have been the first to show radiographs taken after injecting air into the abdomen of a patient who had been tapped for ascites. A great deal of credit should be given to Weber (5) who began in 1912 to work out this technic on animals and cadavers. His published plates are excellent and it is surprising that his epoch-making article in a widely read journal should have been so completely ignored and forgotten by the profession. Although a few papers (6) appeared on the subject in the next few years, it was not until 1918 (7) that the men in Europe seemed to wake up to the possibilities of this method of diagnosis. While in the East last June I saw some beautiful plates taken with this method by Drs. Stein and Stewart of New York (8). These impressed me so much that immediately upon my return to San Francisco I began experimenting on animals to satisfy myself of the harmlessness of the procedure, and later to see if I could modify it so that it would be more convenient for use at the office. Its harmlessness in suitable cases seems to have been well established, as no accidents have been reported from the clinics in which it has been used extensively. Rabbits and guinea pigs can be distended with  $O_2$  or  $CO_2$  to a degree not approachable in man, without producing any signs of distress or concern. Strange to say the rapid absorption of these large quantities of gas does not bother their respiratory centers.

The more I work with this method on man the more enthusiastic I become, and the more convinced that we have here the biggest advance in radiologic technic since the introduction of the bismuth meal by Cannon in 1898.

#### Technic.

The patient ordinarily should have the bowel and stomach empty. In certain cases, however, good results are obtained by having the bowel filled with barium. I believe it advisable to give the patients a quarter of a grain of morphin hypodermically fifteen minutes before the injection because otherwise some will be very restless and will complain of pain. Nervous women will be quieted by the sedative and will be less likely to get panicky if they feel faint and oppressed about the heart. Some of the more phlegmatic individuals do not seem to feel much distress and complain only about the abdominal distension.

I use a spinal puncture needle which is thrust through the left rectus muscle near the navel. The skin is painted with a little iodine. No anaesthetic is needed. With a little practice one can tell

\* From George Williams Hooper Foundation for Medical Research, University of California Medical School, San Francisco.

- (1) Henzelmann: Wien. klin. Wchnschr., 1918, 31, 915.
- Löffler: Münch. med. Wchnschr., 1914, 61, 763.
- (2) Nieden: Deutsche med. Wchnschr., 1911, 37, 1515.
- (3) Hoffa: Berl. klin. Wchnschr., 1906, 43, 940.
- Jacobsohn: Deutsche med. Wchnschr., 1907, 33, 703.
- (4) Lorey: Verhandl. d. dtsh. Roentgen Gesellsch., 1912, 8, 52.
- (5) Weber: Fortschritte a. d. Gebiete d. Roentgenstr., 1913, 20, 453.

- (6) Meyer-Betz: Münch. med. Wchnschr., 1914, 61, 810.
- Rautenberg: Dtsch. med. Wchnschr., 1914, 40, 1205.
- Berl. klin. Wchnschr., 1914, 51, 1608.
- (7) Goetze: Münch. med. Wchnschr., 1918, 65, 1275.
- Schmidt: Deutsche med. Wchnschr., 1919, 45, 201.
- Schittenhelm: Deutsche med. Wchnschr., 1919, 45, 566.
- Rautenberg: Berl. klin. Wchnschr., 1917, 54, 22.
- Alessandrini: Policlinico, 1919, 26, 641.
- (8) Stein and Stewart: Ann. Surg., 1919, 70, 95.

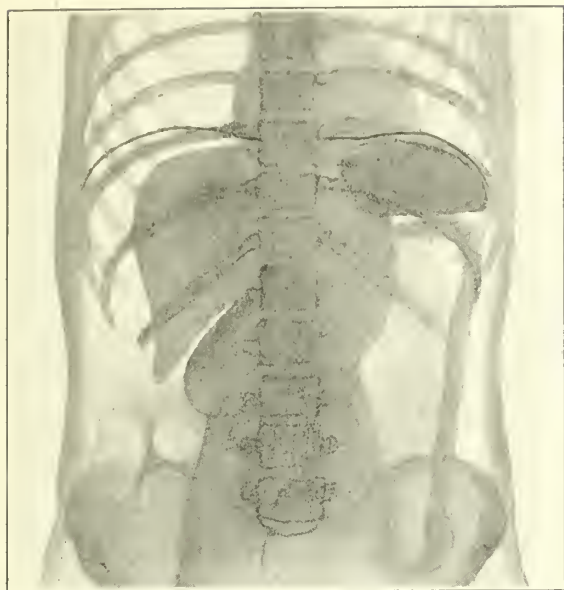


FIGURE 1.—Taken with the patient lying prone. Note the heart, lower ribs, diaphragm; spleen, liver, kidneys, descending colon containing traces of barium; loops of small bowel; cecum and ascending colon full of gas; ileopsoas muscles and pelvic brim.

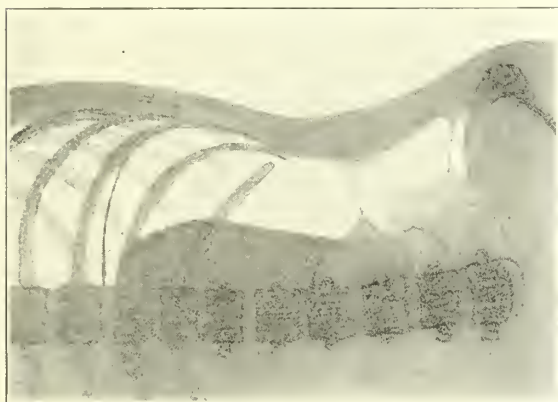


FIGURE 2.—Taken with the patient on the left side. Note the lower ribs, upper surface of the liver; and peritoneal bands running to a prolapsed kidney lying transversely across the spine, and to coils of intestine.

when the point of the needle goes through the peritoneum. I generally inject first a little sterile normal salt solution to make sure that the needle is clear and properly placed. It then is connected with a small rubber bag which contains a liter or two of gas. There appears to be no need for sterilizing or washing this gas. Experiments on animals and all the experience on man indicate that, with ordinary care, there is no danger of damaging the bowel with the needle. The amount of gas injected depends on the feelings of the patient. A compromise often has to be made between the desire of the radiographer to get good plates by the injection of large amounts and the desire of the patient to be let off easy. When

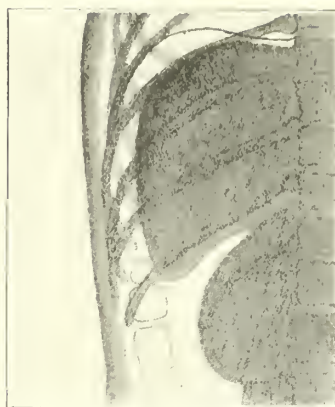


FIGURE 3.—Taken with the patient lying prone. Shows the diaphragm; normal liver and kidney and the haustrae of the ascending colon filled with gas.



FIGURE 4.—In comparison with the preceding plate, note the enlarged and thickened gall-bladder and the coils of bowel which do not drop down out of the way. Operation showed a large, thickened gall-bladder without stones. There were strong bands of adhesions binding the hepatic flexure to the hilum of the liver.

enough has been introduced, the needle is removed and the work of taking plates is begun. If possible the patients should be kept lying down until their gas has been absorbed or until they are comfortable again. When they sit up, the pain in the shoulders becomes acute and they may feel as if they were going to collapse. Strange to say, after an hour or two they may be able to walk around quite comfortably, although it can be seen with the screen that the liver is four inches or more below the diaphragm. Very satisfactory plates can be taken with the patient prone. Particularly when the gall-bladder region is raised a little on the inclined plane which is used in taking frontal sinuses, the liver and kidney shadows are separated and beautifully distinct. The gall-bladder can be shown better with this technic than with any other, and there no longer is any need for catheterizing the right ureter when we want to tell whether a stone shadow is in the gall-bladder or in the pelvis of the kidney. Adhesions to the gall-bladder may also be shown very clearly.

Stereoscopic plates taken in the prone position are beautiful, and will show the liver, spleen and kidneys in all their outlines as clearly as if they were exposed by dissection. With the patient



first on one side and then on the other, the diaphragm stands out as a thin line on the plate. The lower ribs show so clearly that no difficulty need be encountered in showing old fracture lines. The upper surface of the liver can be seen perfectly, so that adhesions, cirrhotic deformities and syphilitic or carcinomatous nodules can be recognized. Peritoneal adhesions, tumors of the colon and small amounts of ascitic fluid may also be seen. The stomach may be inflated a little, whereupon its walls can be studied. The relations of tumors to surrounding organs may become clear. In the Trendelenburg position the uterus and even the ovaries may be visualized. In one of Dr. Stein's plates one can see cysts in the ovaries. Adhesions to the anterior abdominal wall can be shown by taking a lateral plate with the patient on his back. Lesions of the spine and aneurisms of the abdominal aorta can be demonstrated clearly when they are present. Occasionally one can see calcified mesenteric glands.

#### *In Improvement in the Technic.*

After working with this technic for a few days it seemed to me that its usefulness would have to remain limited largely to hospital patients unless some means could be found of getting rid of the gas more promptly. Although in most cases the oxygen was sufficiently absorbed in two or three hours so that the patient could leave the office, few cared to work next day; and one man still had a large amount of gas in his abdomen after five days. Hence Dr. F. B. Taylor and I began injecting rabbits at the Hooper Foundation with various gases and soon found, as we expected, that CO<sub>2</sub> would be absorbed many times faster than O<sub>2</sub>. After satisfying ourselves that the procedure was harmless, we began using CO<sub>2</sub> at the office and have since made it almost a routine. The great advantage of this method is that we can assure the patient that in twenty-five minutes his gas will be out, his distress will be over, and he can go back to his work as if nothing had happened. The disadvantage is that the operator must work rapidly if he is going to get all the plates he wants. Moreover, if a plate should be unsatisfactory for any reason, or if on development, something should be found which requires further study, it may be too late. We overcome this difficulty somewhat by having three people working rapidly; one developing as fast as the plates are taken. It may be, now, that by adding a little O<sub>2</sub> we can slow the emptying a little and yet retain the great advantages which have been gained with the new technic.

#### *Summary.*

A technic is described which the writer believes marks the biggest step in advance as regards intra-abdominal diagnosis since the bismuth meal was introduced.

After injecting gases into the peritoneal cavity the intestines will float out of the way and the various organs will move around so that beautiful X-ray plates can be secured of the diaphragm, liver, spleen, gall-bladder, kidneys, gastro-intestinal tract, spine, uterus and ovaries.

This technic has proven particularly helpful in the diagnosis of gall-bladder disease.

By using CO<sub>2</sub> instead of O<sub>2</sub> the writer has modified the original procedure so that it may now be used in the office as well as in the hospital. Whereas the O<sub>2</sub> leaves the abdomen in from 24 to 100 hours, the CO<sub>2</sub> leaves in half an hour.

*Note*—Inasmuch as it is impossible to reproduce the finer details of radiographs on ordinary printing paper, I have had drawings made from a few of my plates. Those who saw these plates at a recent meeting of the San Francisco County Medical Society will, I think, agree with me that Mr. Ralph Sweet, the medical illustrator at the University of California, has copied them very faithfully.

## Original Articles

### THE PRACTITIONER'S CONTRIBUTION TO EMBRYOLOGY.

By ARTHUR WILLIAM MEYER, M. D., Department of Anatomy, Stanford University, California.

Human embryology could not have been developed without the cooperation of the practitioners in medicine. This could only fail to be true if midwives or others had donated the material from prematurely terminated pregnancies, to those specially interested in human embryology. Although, on rare occasions, midwives have cooperated with physicians and laboratory workers in this way, their contributions naturally have been of a very minor sort. However, if midwifery were properly controlled, or if midwives were properly organized, this need not remain true, for evidently they attend a very large number of cases of labor and undoubtedly learn of many more miscarriages, particularly in the early periods of pregnancy. Beitler (1914) for example, estimated that 23.05 per cent. of all births reported in the State of Maryland the previous year, were attended by midwives, only a little over half of whom were licensed. According to Beitler, 58.90 of the births among negroes and 15.57 of those among whites were attended by midwives.

It is gratifying and encouraging indeed that laboratory workers in embryology always have been able to obtain material desired for investigation by appealing to the practicing physician. Examples of eminent anatomists who have perseveringly appealed to the medical profession for this material are those of Meckel, His, and Mall. All of these have contributed much to our knowledge of normal and pathologic development, and through the efforts of Mall the Carnegie Institution founded the Department of Embryology, which now possesses approximately 3000 specimens of abortuses of various ages.

The spirit of ready and generous cooperation on the part of physicians is one of the glories of the medical profession, and is in keeping with the large measure of purely altruistic service which physicians have rendered throughout the history of medicine. And was it not the father of medicine himself to whom we owe the word "philan-

thropy"? If the future socialization of medicine involved an abandonment of the opportunity for such service it would be regrettable in the extreme.

It is self-evident that normal embryology could not have been developed, and that progress along certain aspects of embryology would be impossible, unless continued cooperation on the part of physicians can be assumed, as I am sure it may. It will also be impossible to develop the subject of ante-natal pathology without a very large collection of abortuses, which necessarily must be gathered by practitioners. Large collections are necessary, not only because few conceptuses are aborted fresh and uninjured, but because it is only the large collection that can afford adequate material on many aspects of the subjects of embryology and ante-natal pathology for many of the specimens unavoidably are quite worthless. Yet it is well to remember that frequently only a careful examination can decide this fact, and that mere inspection suffices but rarely, particularly if the specimen be young. At present, not even an expert can speak with certainty regarding the possible value of an early conceptus by inspection alone.

Although only a beginning can be made in the study of many things at present, it is important that this beginning be made as soon as possible, and that it should not wait for another day. Nor are purely theoretical questions alone involved. Many of them have the closest practical bearing. It is, for example, becoming more and more evident that a thorough understanding of early infantile mortality is dependent upon a knowledge of the causes underlying prenatal mortality. This, to be sure, is true simply because the ill effects upon the developing conceptus of untoward prenatal conditions continue to affect the new born child. Hence, for this reason alone it is of the greatest importance not only that the occurrence of miscarriage or abortion should be noted and recorded, but that the material from abortions should be studied intensively. Perhaps it is permissible to add that from a study of this material it has been possible to show among other things that complete intra-uterine absorption of entire early conceptuses is possible, that hydatiform degeneration is very common in early aborted conceptuses, and that it also is common in tubal pregnancies. A unique specimen received from Dr. Valk of Modesto also showed that the development of a conceptus may progress for some time although the embryo never even was formed.

The causes which underlie the amazing prenatal mortality, estimated by Mall (1917) as over forty per cent., can be revealed adequately only with the aid of this material and the knowledge obtained, which will put the treatment of congenital debility and infantile mortality upon a more rational basis. A study of the material from pregnancies terminated prematurely, whether therapeutically, spontaneously, or otherwise, also can extend our knowledge both of normal and abnormal human development, and enable those

specially interested to enrich the field of ante-natal pathology. Since aside from the patient or the midwife, this material comes to the attention of the practicing physician alone, his cooperation always will remain indispensable. He holds the key to the development of human embryology and ante-natal pathology, for he alone controls the material upon which progress very largely depends. Experimental work on animals is possible without this material or a study of it, but that is no reason why we should refuse to learn from nature's experiments, or from those of disease, or from those performed, alas, by the individual upon herself. Although the element of time is not under control, and other conditions are not what we speak of as "standard," whenever nature performs such an experiment upon a human being, the fact remains that they nevertheless are experiments upon human beings. The significance of these we must try to understand no matter how difficult the way.

Disregarding the unfortunate social significance of the amazing prenatal mortality, estimated as almost forty per cent. by Pearson (1906) and more than that by Mall, there is hope for progress in these matters because the material is so very abundant. However, even a plethora of material will avail us little if it be not put to use. According to the above estimates of prenatal mortality, approximately 25,000 to 35,000 abortuses are available for study annually in California alone! Hence, if only one-half of this material came to the attention of physicians and were transmitted by them it would be more than a dozen laboratories possibly could use to advantage, unless each were provided with a large staff available for this purpose alone. But there are not a dozen of us who have been, or are interested especially in this material, and the friendliest cooperation exists between Professor Evans and myself. Whatever he has is available to me for study, and whatever I have is available to him. We are interested in saving this material for the ultimate good of science and particularly for the sciences of embryology and medicine. Furthermore, if these donations of physicians are put to use, the gift is bound to bless the giver and redound to the good of the profession as a whole. Our desires are not unlimited, and the receipt of a modest one-hundredth of the total material available in any one year, would be extremely encouraging to us.

It is true that pre- and post-natal maceration and degeneration are almost constantly present in these specimens. Nevertheless, some of them are of unique and crucial value. No one would, to be sure, use anything but absolutely fresh material for cytologic studies, but less perfect material may offer important gross evidences and much more can often be revealed by a microscopic examination of material which cannot serve for a study of finer structural details. However, it is all-important that the material should be preserved as soon as possible, and that all of it be kept. No one can predict within a given case whether the de-



cidua, placenta, chorionic or amnionic vesicles, the cord, yoke sac, embryo, or perchance a blood clot or material from curettage may contain long-sought information.

If all the material aborted is placed in 10 per cent. commercial formalin and water and properly marked for identification, it can be disposed of at some convenient moment later—hours, days, or even weeks after it has been preserved. For many reasons, however, it is well that transmission of it be not delayed longer than necessary, for not infrequently a study of a conceptus gives indications of therapeutic importance. Delay often would make this information valueless. As examples of this I may refer to such actual instances as the discovery of carcinoma in an ovary, of fragments of a conceptus in a case regarded as hypertrophy of the endometrium, of the common existence of hydatiform degeneration, of almost total intra-uterine absorption of entire conceptuses, of evidences of thereto unsuspected syphilis, of endometritis, of ovarian pregnancy, pseudo-superfetation, and of hyperplasia of the endometrium in a case of assumed pregnancy. But even if the laboratory worker cannot often be of much assistance to the practicing physician *at present*, co-operation not only will hasten a better day, but is bound to bring the knowledge that will make self-help possible.

The greatest lack in connection with abortuses is the absence of data regarding the pregnancy. I know full well that it often is impossible for the attending physician to obtain data desired, and shall be extremely grateful for whatever is sent. But it cannot be emphasized too strongly that histories are absolutely indispensable for the elucidation of many things in the field of the pathology of human development. It matters not if all the data desired cannot be, or that they were not obtained, but it is very important that such data as are known be sent. In order to facilitate the taking of records, I append an outline or history blank which indicates the kind of information needed. Duplicates of this outline, as well as containers, will be forwarded gladly upon request. Material may be forwarded by mail, or by express collect, with a statement of any expense incurred, to the Department of Anatomy, Stanford University, California. It not only will be properly and permanently stored, but will be studied and always will be available for this purpose to any one properly qualified.

Through the courtesy of this Journal I have previously appealed to physicians for this material. For the gracious cooperation that has come to me, I express my warmest gratitude. The specimens received are of course not regarded as personal property, but, as stated in 1913, go to form a permanent study collection, which will always remain within the state at the service of anyone interested in it. All specimens are credited to the donor in permanent records, and all inquiries will be answered as promptly and as carefully as possible.

I have recently (1919) suggested the use of the

words abortus and conceptus, and have used them myself, because they fill a real need. Their meaning is almost self-evident, but it may be added that abortus designates anything aborted; that is, the entire product of gestation and the decidua or any portion of these with the accompanying clots. The conceptus, on the other hand, includes only the entire product of conception or a part of it *in any stage of development*. Anyone interested in the use of these terms will find them discussed in Science, volume 49, 1919. They should be no more objectionable when pluralized with "es" than the words fetus and plexus and other similar terms that have been in use for centuries.

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#### History Blank.

##### DEPARTMENT OF ANATOMY, STANFORD UNIVERSITY, CALIFORNIA.

Accession number.....	Serial number.....
Note: Please save all material—decidua, placenta, membranes, vesicles, embryo, and clots, unless obviously valueless.	
Name of Donor.....	Date.....
Address of donor.....	
Name or identification number of patient.....	
Age of Patient: Actual..... Alleged..... Estimated.....	
Date of termination of pregnancy.....	
Cause of termination of pregnancy (Spontaneous (Accidental (Induced (Other causes	
Condition of specimen when obtained (Fair (Fresh (Poor	
(Formalin 10 per cent.....	
Preservative used: (Alcohol 80 per cent.....	
(Other reagent	
Approximate interval between passage and preservation of material.....	
Note: Please use formalin whenever possible.	
Beginning of last menses: Month..... Day..... Year.....	
Duration of usual menstrual period.....	
Duration of usual intermenstrual period.....	
Number of previous births.....	
Number of abortions or miscarriages.....	
Venereal disease: Mother (Syphilis Father (Syphilis (Gonorrhea (Gonorrhea	
Other associated diseases.....	
Race of mother: White.... Black.... American Indian.... Brown.... Yellow....	
Race of father: White.... Black.... American Indian.... Brown.... Yellow....	
Note: The Hindu should be classed as white; the Japanese as brown.	
Parentage of mother: English.... French.... German.... Italian.... or.....	
Parentage of father: English.... French.... German.... Italian.... or.....	
Note: Please state the expense incurred.....	
Containers will be sent upon request.	
Mail or express to	
A. W. MEYER, Stanford University, California.	

## THE PROBLEM OF UTERINE CANCER.

By FRANK W. LYNCH, M. D., San Francisco.

During the last few years, there has been attracted to the Woman's Clinic of the University of California Hospital—in large part because of our work with radium—an ever increasing number of cases of uterine cancer. No one, I am certain, could study the data offered by this mass of material without concluding very definitely that the general profession is doing little to improve the cancer situation, and that this disease in the hands of men doing surgery is quite as hopeless as it was years ago when MacMonagle reported his series of 481 hysterectomies for uterine cancer with only two ultimate cures, and when Baldy confessed that he had never cured a case by any form of treatment.

There is no doubt but that we may not attain a proper solution of the cancer problem until the laity is educated to appreciate the importance of the earliest symptoms. Yet such education will avail but little a patient who falls into the hands of one who has not yet recognized the essentials of proper treatment. I, for one, believe that we will make greater headway in our problem by devoting our chief effort at present to the physician rather than to the laymen, since the physician has long been led afield by a mass of conflicting literature.

To my mind, a large part of the confusion in the literature has developed because the earlier student of cancer grouped in his investigation cancers from all parts of the body, ignorant of the fact that cancers differ markedly among themselves. In the same manner, our gynecologic literature teems with contradictory statements because so many have grouped together in their study all uterine cancers, which differ so markedly among themselves in habits of growth. Cancer of the cervix constitutes the problem of uterine cancer because so few are cured. In comparison with cervical cancers, the carcinomata of the uterine body lose their importance since they usually permit of cure.

Leucorrhea and haemorrhage are the only symptoms of operable cervical cancer. Yet we are constantly disappointed in finding that many cases are frankly inoperable even though they present for treatment shortly after the first sign of bleeding. There is, however, a clear reason for this fact. Only about one tenth of the cervical cancers are everting in type, and thus capable of giving early symptoms from bruising of the growth. In the other nine tenths, the growth early inverts or infiltrates and thus has but little chance to bleed until it has extended sufficiently far out to permit of slough of the older areas which have been deprived of necessary circulation. Moreover, with the advent of the first haemorrhage, the case is complicated by the presence of an infected ulcer. We can clearly see that if we await the development of bleeding that we may not hope to cure in

the mass of cervical cancers. Hope lies only in the recognition of leucorrhea as the only safe early sign, and prophylactically, in the early repair of cervical lacerations and the proper treatment of gynecologic disease, since cancer is practically unknown in women who have not borne children or who have not had some pelvic disorder.

There is no doubt that we will make a long step forward when all students are taught to clearly differentiate the symptoms of inoperable and operable cancers. We, as physicians, chiefly interested in cure, are concerned primarily with cancer in an operative stage, since there is no doubt but that at the present time surgery offers the only chance of cure. Why, then, should we present without proper emphasis, in surgical treatises, cachexia and other late symptoms which are not symptoms of operable growths.

Yet we may not hope to combat successfully this disease which kills annually in the United States more than 11,000 women, without universal and long continued education. In the long intervals until the arrival of that era, we will be concerned with the treatment of all cases in all stages of growth, just as now, and the cure of cancer presents many problems. We, as surgeons, do not always recognize the features peculiar to cervical cancer. In marked contrast to the malignant tumors of the breast, ulceration is the almost universal rule. And the ulcer, moreover, is responsible for a large part of the symptomatology and many of the findings. From the walls of the ulcer comes the bleeding. The pelvic glands enlarge from absorption from the infected area. The parametria infiltrates from extension of the infection. In the breast enlarged axillary glands mean cancerous involvement since cancerous ulcers of the breast are comparatively rare. On the contrary, the pelvic glands first swell from absorption from the ulcer. While they may contain cancer cells, yet seldom save in late cases is the enlargement due to them. The treatment of the ulcer is a most vital thing and we must not lose sight of its importance.

Radical removal, although impeded by the presence of the bladder, ureters and rectum and an infected field, is strictly possible in selected cases. Cases are cured, yet its percentage in this country is not nearly as large as many would induce us to believe. We, therefore, must plan to operate properly the greatest number, since all cases not treated by proper operation will surely die. Long before Halsted evolved the modern operation for cancer of the breast, there were radical operations for uterine cancer. With this in mind, is it not of interest that it has remained for the breast surgeon to prove without doubt that you may not safely incise cancerous tissue and delay operation? Yet men who would not dream of thus attacking suspicious areas in the breast, daily remove tissue from the cervix and await for a long time a pathological report, apparently ignorant of the fact that by so doing, the patient loses her chance of cure. The same holds true for curettage to clean up the infected ulcer. It is high time that all

\* Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.



surgeons learn that the excision of cancerous tissue must be followed by an immediate radical operation.

Many have offered in defense of such error that the early diagnosis may be a difficult thing, to be decided frequently only by an expert pathologist, so that there may be reason for such delay. Yet this does not hold. Cancer operations are not emergencies and the needed consultation can be easily arranged. Moreover, the public will soon learn that a man who is not a pathologist is not a safe person to be entrusted with such a formidable operation as the radical removal of a cancerous uterus. The pathologist also will learn that the older and slower methods of fixing tissues for microscopic study while suitable for post mortems have no place in an operating room. Surgical pathology demands immediate diagnosis, which constitutes no problem, since it deals with living cells which permit of frozen sections and the staining of living tissues.

Yet the removal of tissue prior to operation, objectionable as it is, does far less harm than the simple hysterectomy designed as cure. I am perfectly aware that the literature of the past supports the performance of such operations based often upon the statement that the growth is limited to the uterus in 40% of operable cases, and that it invades only by direct extension, a fallacy disproven long years ago by Ries, Kundrat, and Sampson and many others. Moreover, many who are fully aware that simple hysterectomy rarely if ever cures, still insist that it is useful as a palliative measure to check bleeding and to make the patient generally more comfortable. Personally, I have never seen a late case whose condition was improved by operation. More than twenty years ago, no less an authority than Sanger abandoned such treatment on the ground that the reverse was true, since it gave no hope of cure in extended growths and actually intensified the subsequent suffering. Case after case comes to our clinic for radium with infected ulcers and large pelvic masses almost fresh from the hands of surgeons who have done the simple hysterectomy, proving the long established rule that it is worse than useless to cut through cancerous tissues. We have learned also by experience that radium does not do much for the improvement of such cases.

Out of the myriads of cancer articles has come the now accepted truth that we are justified in surgical measures only when they are most extensive, and that all operations should be restricted to early cases. The large remainder are better treated by radium. Experience is teaching us daily that if there is question as to operability, the case does not permit of cure by surgery. Education of the laity and physician alone will bring us earlier cases, since the extreme of operative treatment has been reached in the extended operation.

The truly radical removal is a formidable operation, not only with a fixed primary mortality but with much morbidity as well, yet its basis is firmly proven by hosts of investigators. Con-

siderable work has been done in this country. The most interesting of this was done by Sampson who, in 1906, reported the study of 27 specimens removed by his most extensive operation. Like Kundrat, he made complete serial sections, a tremendous yet necessary labor. He demonstrated by this means that a parametrium may be indurated without cancerous invasion; that it may present as normal and yet contain cancer; that soft and normal feeling glands may present cancer cells even though the parametrium is free from them; that the parametrium was cancerous in 62% of his cases; and that the lymph nodes in the pelvis were involved in nearly one-half of his operable cases. The operation of Ries, then, alone is perfect in theory since it removes the glands as the primary step of of the operation, a method most necessary since we may recognize cancerous glands only by microscopic serial sections. Moreover, late recurrences after a truly extended operation are regional rather than local, since they are from cancer in glands which have escaped removal, because carcinoma cannot arise from glands, since they do not contain epithelium.

Yet few hold that this perfectly designed operation is the one of choice because of the undecided question as to whether the increased primary mortality from such formidable surgery will more than offset the ultimate cure in a group of women who are late in life. But Ries' contention is worth considering. At the discussion of Wertheim's paper at the Chicago Gynecological Meeting in 1907, Ries again called attention to the fact that cancer ultimately and invariably kills unless removed; that the primary mortality of a truly radical operation is fixed relatively and that great reductions from it mean more often restriction of the extent of removal than perfection of the operator's technique. Yet the operation of Werder of Pittsburgh, popularized by Wertheim, represents the extreme of radical operations for which we now all plead adoption. It calls for the removal of the uterus, tubes and ovaries, one half the vagina and the parametria as far out as the pelvic walls in one piece after isolation of the ureters. Less than this should not be done on cervical cancers which come to operation. Yet many do a make-shift operation, free the ureters but leave their bed, removing little more than the ordinary hysterectomy, saving the operator much chance of a primary death but dooming the patient to ultimate death from cancer.

I agree with Peterson that a surgeon may have a right to dodge the issue and save a primary death under certain circumstances, if one does not include such cases in the list of extensive operations, since they give otherwise a false conception of the primary mortality. Nor is it necessary to state in our cancer series what cases were operated radically unless controlled by the ultimate results. The number of cases that survive five years or more alone determines what cases were treated radically.

Experience with radium convinces me that early growths are best treated by extended removal, and all others by radium, which has no equal as a

palliative measure. Whether radium cures or not may be an open question, but nothing treats<sup>1</sup> so successfully a case which does not permit of extensive operation. It is more than likely, however, that early cases alone permit of cure, be the treatment what it may. A year ago, I reported my work with 50 to 90 mgs. of radium. We now believe that these amounts are small if one seeks a cure. We are now working with 100 and 150 mgs. The point is often advanced that radium treatments should precede all operations. A year ago, I reported a case operated after radium presenting many pelvic adhesions. We have had very recently one other case of operation after a seemingly inoperable growth had been made apparently operable by radium treatments. Under its use the ulcer disappeared and the vaginal vault became smooth. The parametria became softened and the uterine felt free. Yet a removal proved impossible since the growth extended far out beyond the ureter which was imbedded in a mass of softened cancerous tissue, adding one more proof that we should select our cases either for extensive operation or radium alone.

Finally, we present these points as conclusions:

I. Early cases alone afford hope of cure and the education of physician and laity is necessary before results show marked improvement.

II. Pre-operative removal of tissue for microscopic study must be followed by immediate operation if operation is contemplated.

III. The presence of an ulcer complicates the problem of uterine cancer.

IV. The curette should not be used in cleaning up an ulcer.

V. Early cases alone should be operated and only by the extended operation.

VI. All other cases should be treated by radium.

VII. Simple hysterectomy has no place whatever in the therapeutics of cervical cancer.

#### REFINEMENT OF COLORIMETRIC METHODS WITH SPECIAL REFERENCE TO INDIGO CARMINE AS A FUNCTIONAL TEST.\*

(A Preliminary Report.)

By GEORGE G. REFINIE, M. D., Visiting Urologist  
Samuel Merritt Hospital, and

E. SPENCE DEPUY, M. D., Associate Urologist  
Samuel Merritt Hospital.

Accepted as probably the most valuable single test of Renal function. Phenolsulphonephthalein as proposed by Rountree and Geraghty (1) has won the deservedly high place it holds. With others we have found it to have every particle of value claimed for it, nor is it any part of our purpose to detract from its worth. Phthalein does, however, have the misfortune to be unserviceable in the presence of hematuria. This shortcoming is not due to any weakness of the dye as a test, but is inherent in the limitations of colorimetric methods. Color tests being dependent upon percentage com-

parison against a standard, phthalein can not be so compared when contaminated with hemaglobin, for the standard is red and the urine to be compared is brown.

This is particularly unfortunate in prostatic hypertrophy for, though we may gain valuable information of waste retention through the use of blood chemistry, and even more from blood cryoscopy, (now falling into disuse because of the technical skill and time required for its performance) we are still left much in the dark regarding excretion, when the Phthalein test becomes unavailable.

In the futile effort to make Phthalein tests under these conditions,—i. e., when contaminated with blood,—and finding that we were actually not making color comparisons at all, but were merely matching densities with fair success, our attention was attracted to the fact that we were doing practically the same thing in amber colored urines. We were at this time using the Helleger colorimeter, and our suspicion having been aroused by the inability to compare reds with various shades of red-brown, we determined to investigate the matter thoroughly. We tried the makeshift of interposing various shades of amber glass between the light and the standard, but with small satisfaction. The Helleger colorimeter, being rapid and simple, and being perhaps in more common use than any other except the Dunning, we felt that whatever difficulties we were having others were having also.

For a long time also we had felt dissatisfied with the comparatively low Phthalein values secured from cases investigated in routine work where no kidney involvement was thought to be present. The question was raised in our minds as to why our normals would not agree with the normals found by the originators of the test. In referring to the original article we found that the Dubosq colorimeter, an instrument not easily obtainable, had been used.

Geraghty (2) says of the wedge-shaped Helleger colorimeter that it is "approximate." If a test is to be really of value it must be correct, not approximately correct, for if not how is one investigator to compare his findings with those of another, and how is he to reconcile them with the carefully tabulated series of cases presented by the originator of the test! This applies to all tests, if they are to be of any scientific value whatever.

Geraghty, among his seven postulates of the ideal functional test, asserts (2): "It should afford an indication of the absolute work accomplished as well as the relation of this to the normal standard under all conditions." Any technique giving only approximately correct readings does not fulfil this condition. It therefore became our desire to find out, if possible, how far from correct were the readings of the two colorimeters in most common use, and to discover some simple method of correction.

Fortunately for our purpose at about this time a new and very simple colorimeter was proposed by Peebles. (3) The principle is that of com-

\* Read before the Forty-eighth Annual Meeting of the Medical Society of the State of California, Santa Barbara, April, 1919.



parison by reflected light rather than transmitted light. The instrument is one that can be devised in a half hour's time and therefore easily available. One glance through the new colorimeter was sufficient to convince us that no colorimeter employing the principle of transmitted light can possibly be really accurate for urological purposes. All urine possessing more or less coloring matter, one discovers immediately on examining the diluted urine that it can not be compared with a standard aqueous solution. Phthalein as it appears in urine is not red, but red-brown, whereas the standard is red, and no matter whether diluted to 1000 or a multiple of 1000 the urine carrying the Phthalein is always some shade of red-brown, and never a lighter shade of red. We therefore adopted the following technique.

*Technique:* Two standards were prepared for use in each determination.

No. 1. A standard Aqueous Phthalein .006 to 1000.

No. 2. A standard dark amber urine Phthalein .006 to 1000.

By a dilution of the urine-standard with the water-standard a separate standard was established in each case, and that standard compared with the urine under investigation. In one of the parallel tubes of the colorimeter the patient's urine, diluted to some multiple of 1000, is brought up to the 10cc. mark. In the opposite tube is placed four or five cc. of either of the standards. A glance shows whether there is too much or too little yellow coloring matter, and either the aqueous standard or the urine standard is added until an exact match is obtained. The whole process occupies probably five minutes, and is so easily accomplished that the test can be performed by any trained attendant.

Having solved the problem of actually matching colors, which we were able to do within one half of one per cent., we were then prepared to check our findings with reflected light against the findings of transmitted light.

We were not surprised, because our figure now for the first time began to agree with those of Rountree and Geraghty, that our percentages were running higher, all the way from 5% to 25% higher. In the urines of pale color the differences were small, in the urines of dark color the differences were greater and they averaged close around the 25% mark. We found out also that Phthaleins, which we had previously been noting on the history sheet as a trace, we were now quite definitely charting in percentages running as high as 10%. This was particularly an advantage when doing Phthaleins for determination of separate kidney function, though as a bladder test, upon one and two hour collections after time of appearance it seldom became necessary to estimate such low values. In one case following a nephrectomy however, we found it interesting to note definite amounts rather than merely a trace.

But we were still in as poor a position as before, when, in some prostatitis, we had blood

in the urine. Making a third Phthalein standard contaminated with blood, did not seem feasible and in practice was too cumbersome to manipulate. We therefore determined to try Indigo Carmine in spite of the fact that long before Oppenheimer, (2) as quoted by Geraghty, had said he found the color of the drug did not lend itself to colorimetric reading on account of the variations in quality produced by the coloring matter of urine. Having, however, overcome this difficulty in Phthalein we felt that application of the same methods to Indigo Carmine might succeed.

But before attempting any extended work with the blue dye we wished to assure ourselves that no other reliable and easily manipulated test was available, and to that end made a considerable search of the literature.

Phloridzin. The first test considered was Phloridzin. Intravenous Phloridzin having proven of such considerable value in the estimation of separate renal function, when used in accordance with the technique worked out by Krotoszyner and Stevens, (3) it seemed reasonable that it ought to be a serviceable combined test. Authorities, however, lent the theory no support, and the strongest advocate of its use for estimation of separate function had small confidence in it as bladder test. For some reason or another the Nephritic involvement accompanying prostatic hypertrophy caused an undue delay, and not infrequently an entire non-appearance, even when Phthalein comes through in a reasonable time, and this substance was therefore dismissed for routine use.

The Iodid test of Von Norden (4) was then considered. This test, valuable for time of appearance, loses its value for purposes of estimation of quantity when it is considered that elimination takes place over a period of 30 hours.

Other tests, such as Lactose, Albarran's polyuria, Methaline Blue, Rosaniline, could be dismissed without much consideration. There was left to us then Indigo Carmine only. Had it the necessary characteristics to qualify as a reliable and workable test? In answer to that we will briefly recapitulate the nine qualifications Geraghty (2) enumerates as desirable in a functional test. It should:

1. Indicate within narrow limits the constant amount of work performed by all normal kidneys under normal conditions.
2. Indicate constant variations in function when constant abnormal conditions are present.
3. Indicate functional alterations independent of histological appearance when such conditions exist.
4. It should afford an indication of the absolute work accomplished as well as relation of this to the normal standard under all conditions.
5. It should be applicable with as simple a technique as possible.

It should be applicable without injury to the patient, or without exciting extra functional call or strain upon the kidney itself.

7. The method itself should be mathematically accurate.

8. The result of the application should be easy of interpretation.

9. It should not only be capable of indicating the work executed under normal conditions, but should also be capable of revealing the latent or reserve force which can be utilized by the kidney under strain.

Indigo Carmine we do not claim meets all of these requirements, neither does Phenolsulphonaphthalein for that matter. What we had hoped to prove for it, though we can not do so at this time, is that it will meet as many of the conditions as does Phthalein, and possess the added advantage of requiring less time. Some of Geraghty's conditions, as we shall point out, are already accepted; as to other conditions it is our desire to offer such evidence as we possess. The amplified Indigo Carmine test is not offered as in anywise a substitute for the Phthalein test, except under conditions where the latter can not be used, but is proposed as either an alternative test or as a supplementary test when urine is uncontaminated by blood.

When the details of estimation have been perfected it will be quite simple to apply both Phthalein and Indigo Carmine, when doing separate kidney determinations, since the color of one is brought out by acid and the other by alkali.

Among the conditions already accepted for Indigo Carmine is its unquestionable applicability without injury to the patient.

Of the other conditions we submit the following:

First, simple technique; 2, mathematical accuracy; 3, ease of manipulation.

7-b. Second, conclusion as to reliability and accuracy under normal conditions. In regard to this second point, the establishing of a standard, we must confess that, whereas we had confidently expected to submit a respectable number of determinations we found after having done a great deal of work that we had to cast aside and begin anew. It is only just that we should state our difficulty, and, briefly, it was that we have not until quite recently appreciated the exceedingly great rapidity with which Indigo Carmine is eliminated, nor had we realized as we now do the necessity for immediate determinations. Urines bearing Indigo Carmine can not be permitted to stand, comparisons must be made within the hour and against a fresh standard made the same half day as the test. Much of our work, in which we had dishearteningly conflicting results we finally found to be due to the fading both of urines that had stood for a few hours and of standards not prepared the same day. These are two vital points.

As to mechanics. Indigo Carmine comparisons can not be made with Helleger's colorimeter because the colors are too dense; neither can it be compared with already prepared standard tubes, for two reasons: one, that yellow in the urine causes a resulting green that will not match up with a standard blue, and because of fadings.

For these reasons it is necessary to use the Peebles colorimeter and the double water and urine standards, as described in our method of making Phthalein determinations. Both water standard and urine standard must be made up fresh each day. The water standard is blue, the urine standard an emerald green. In regard to mathematical accuracy one has but to look through the Peebles colorimeter to realize that it can not help but be accurate. And as to ease of interpretation it is only necessary to compare the individual findings with the established findings of normal cases.

*Technique.* Solution is prepared by dissolving .15 Indigo Carmine in 20cc. of distilled water by boiling. This makes an unstable solution, which on standing crystallizes out; the suspension must be redissolved by again boiling. Only 20cc. are made up at one time and as generally used in a few days, merely requires rewarming; some deterioration of color takes place, in the meantime, but as the standard is prepared from the solution injected it does not matter.

3cc. of this solution, warmed, is injected intravenously and the time of appearance noted. Previous to injection the patient is given two glasses of water to drink. As to the length of time for collection we have had considerable trouble in determining.

8-a. The best technique as to how long to collect and how many periods. Phthalein requires two hours and our first work covered this period. Very shortly we found that this technique was entirely without value. We then tried periods of three half hours, and found the third half hour to be of no value for percentage determinations, there being too small a quantity of dye present for accurate estimation. Careful analysis of the results of two half hour periods as applied to a considerable number of cases again convinced us that the collection was still extended over too long a time.

We found, with the solution and dosage indicated, that the height, or peak of elimination came at about two minutes after time of appearance, that the bulk was eliminated within the next three to five minutes, and that thereafter the color rapidly decreased.

We believe, though we are not yet prepared to state positively, that either two five-minute or two three-minute collections will ultimately prove the basis upon which it will be possible to establish a standard of elimination for normal cases. Once we have satisfactorily satisfied ourselves of the proper time we would appreciate the co-operation of others in the accumulation of a respectable number of findings in nonpathological cases.

No claim is advanced that all of the drug injected is recovered, nor is it necessary that it should be, if a definitely known amount can be regularly recovered. Authorities, Osborne and others (5) claim that only 25% Indigo Carmine is excreted by the kidneys, the balance being destroyed by the liver and elsewhere. If it can be shown that any definite percentage is constant



within fairly narrow limits in normal cases, then for all practical purposes Indigo Carmine would appear to be as useful as Phthalein, a dye the whole amount of which is excreted by the kidneys. It possesses, when given intravenously, the same quick appearance, 3 to 5 minutes, and has the further advantage of short time of collection.

We desire to report then our definite findings to this time on that as a bladder test the average time of appearance is three to five minutes. The shortest time being one and a half minutes, and the longest time being five minutes.

We had expected and are disappointed in not being able to report a considerable number of findings of definite percentages. The reasons that we are not able to do so are, as indicated earlier, that we did not for some time appreciate the instability of the dye, and its loss of color through standing, through which we collected data that was confusing and conflicting. Neither did we in our earlier work realize as we now do the early time in which the bulk of elimination took place.

Elimination is absolutely completed in ninety minutes' average, the latter seventy minutes of urine collection not carrying enough dye to be useful. The shortest time in which only a trace is discoverable is fifty minutes, and the longest time in which we have been able to recover an appreciable amount being ninety minutes.

#### Conclusions.

1. Indigo Carmine may be of service when Phthalein can not be used on account of hematuria.

2. Indigo Carmine output can be measured and checked against a normal standard.

3. Indigo Carmine output, when estimated by suitable colorimetric methods, conforms to as many of the requirements of an ideal functional test as does Phthalein.

4. Indigo Carmine requires but little time for the completion of an accurate functional test of excretion.

MacDonough Bldg., Oakland.

## Book Reviews

**Cerebrospinal Fluid.** By Abraham Levinson. 231 pages. Illustrated. St. Louis: Mosby. 1919. Price, \$3.00.

Embraced in this small book is the physiology of spinal fluid, methods of obtaining fluid, normal and abnormal properties with tests for same, clinical application of findings and intraspinal therapy.

It is obvious that the author in aiming to write a book comprehensive in scope has included useless matter to the sacrifice of valuable detail and exposition in the consideration of important topics. Being a clinician his biochemical and especially bacteriological methods are weak. Much more space should have been devoted to the bedside application of spinal fluid findings.

The chapter on intraspinal treatment finds the author, aided by a broad experience, at his best.

E. A. V.

**Atlas of Operative Gynecology.** By Barton C. Hirst. 292 pages, illustrated. Philadelphia and London: Lippincott, 1919.

The book is more than the title implies. It is a

treatise on gynecological operations. The descriptions on the different operations are clear and the illustrations show the steps of each operation in its most essential stages.

The author gives in each instance the technic of the one method of operative procedure which he, in his long career as operator and teacher, has found best adapted to get the desired results. The book is splendidly gotten up; magnificent print; fine illustrations, though somewhat schematic.

To the gynecological operations proper are added caesarean section and pubiotomy, distinctly obstetrical operations. The propriety of this addition may be questioned especially when some gynecological operations and operations often performed while doing gynecological work are omitted. Such operations as resection of the ovaries, sterilization, plastic work on the tubes, implantation of ureters in the bladder, union of severed ureters, nephrectomy, and appendectomy are omitted but should be included.

H. J. K.

**Mess Officers' Manual.** Prepared by several officers of the division of food and nutrition. Philadelphia and New York: Lea & Febiger. 1919.

Of the countless ways in which the work of the army in dealing with large numbers of men has been exemplary, there are none more striking than those of food and rationing. This little manual, in the compass of 192 pages, gives what is necessary for a mess officer to know. Not only that, but it might be studied to great advantage by hospital superintendents, contractors engaged in feeding large numbers of laborers, and other civilians who have to do with problems of rationing large numbers of people. If the feeding of patients in civilian hospitals were worked out on the plan of the army mess, the patients would get better food and better service with much less waste.

L. E.

**Hygiene and Public Health.** By George M. Price. 2nd ed., rev., 280 pp. Philadelphia and New York: Lea & Febiger. 1919. Price, \$1.50.

This volume, in the form of a syllabus, contains a great deal of information compressed in small space, but the magnitude of the field covered is such that most of the subjects are treated so very briefly as to be little more than suggestions for further reading elsewhere. The chapters on foods, meat inspection, milk, disposal of waste, etc., are very good, but it is unfortunate that the general excellence of the book should be marred by certain statements indicating the lack of first hand knowledge of bacteriology and parasitology. As an example, the statement is made that water may contain the ova of taenia solium, lata, etc., oxyuris vermicularis, ascaris lumbricoides, filaria dracunculus, filaria sanguinis hominis, anchylostomum duodenale, bilharzia hematobia, distomum haematobium, leeches, etc., and among the pathogenic bacteria occasionally found in water are the bacilli of diphtheria, tuberculosis, tetanus, anthrax, malignant edema, etc. The organism of "Weil's" disease is also mentioned as being found in water.

Among the diseases of animals which are infectious to men are included typhoid, cholera and Texas fever.

The chapter on school hygiene is devoted mainly to building sanitation and contains the peculiar statement that the books should be disinfected at regular intervals, and it barely mentions the school nurse. The statement that the school should be furnished with one full-time physician for every 500 pupils will not meet with general endorsement as a practical method of conducting school medical inspection.

W. H. K.

## Correspondence

### THE MATTER OF PAY FOR MEDICAL SERVICE.

To the Editor: San Francisco.

An article appears in your issue of January 1920 that seems to me to present a wrong point of view regarding the attitude of the physician toward his work; and while this point of view may appeal to a few members of the profession, I can not believe that it does to the great majority. The fault with the article is that it assumes the primary object of the physician to be the accumulation of money, and that his dealings with patients should be conducted always with this object in view. But on the contrary, from time immemorial, medicine has been considered one of the great callings or professions, into which men enter because actuated by motives higher than those that prompt the adoption of a mercantile pursuit. It has been handed down by our fathers in medicine and it is as true to-day as it ever was, that the first and highest motive of the physician is service; that his constant desire, inspiring all his daily work, must be the relief of suffering and distress, as he has been trained to do; and to do it for the sake of doing it, not for what it will bring him in dollars and cents. To be sure, he expects and must have a fair return for his service; but he must not make this his first thought or he lowers a great profession to the level of a sordid business.

"Man does not live by bread alone." After thirty years of life as a physician, with success as the world counts success, I am convinced that the profession's greatest reward is that which comes from the consciousness of usefulness. Those we serve may pay for their service or not; they may be grateful for it or not; but the satisfaction that comes from duty well performed can never be taken away. I plead for the preservation of high ideals in medicine. Let no man enter it whose ambition is to become rich. A fair competency all may expect, enough for all the needs of life; but even if the doctor dies poor as regards this world's goods, the one who has been faithful to his ideals leaves behind him a good name that enriches his posterity more than any other heritage.

WM. FITCH CHENEY.

Shreve Bldg., San Francisco, Jan. 10, 1920.

### EDDYISM, INDIANS AND MALARIA.

To the Editor:—

Apocryphal of your comments on Mr. Ross' assertions—where he says that the American Indian lived by swamps and other breeding places of germs in blissful ignorance of their reputed deadliness, and hence with complete immunity from their attacks—I wish to state that I dispute both his propositions.

I have had some personal acquaintance with the American Indian and his environments.

I spent ten years among them as Government physician and surgeon, and know that they were not immune from attacks of malaria, nor were they in blissful ignorance of the reputed deadliness.

The Indian was first, in my opinion, to discover the deadly effects of the malarial mosquito long before the white man discovered it.

In the winter season he camped with his people along the water courses—but as soon as the season of the malarial bearing mosquito arrived he would hie away to the dry and arid plains on his annual hunting expedition, and thus avoid the mosquito and the results of his activity.

All this was changed when the Government took him under control.

The agencies were built along the water courses as at Ft. Sill and Washita, Indian Territory (now Oklahoma), where the Indian was forced to remain the year around and hence was freely

inoculated with malaria. He was no more immune to its attacks than any of the white employees who were associated with him.

I have started out in my rounds among these people during the malarial season with two one-ounce bottles of Power & Weightman's quinine and used the entire amount during the day among the hundreds afflicted.

They learned to know the value of the remedy and sought it of their own volition when in need.

During the malarial season they would sometimes go to this agent and beg to be allowed to go back upon the dry plains, knowing they would be relieved of the scourge.

I remember one summer when large numbers were afflicted, the agent permitted them to go and the sick and feeble company that went out returned in the beginning of winter sleek and fat, wholly recovered from their disabilities.

So much for blissful ignorance and immunity!

It was during my experience in these malarial regions in 1873, 4, 5, 6 and 7 that our ration of quinine became exhausted and we were far from any source of supply, that I learned the value of iodine in treating malaria.

I reported my success to adjacent agencies and also through medical journals, and found others equally successful in its use. The general formula was:

R—

Tinct. Iodine, .....	3ii
Iodide Potash .....	3i
Syrup Aurant Cort .....	3ii

One teaspoonful in  $\frac{1}{2}$  glass of water 3, 4 or 5 times daily as required.

This formula proved quite effective in all forms of malaria, including intestinal neuralgic and other complications, as well as enlarged spleen, where the Compound Tincture was also freely used externally.

It is not often I address the Journal and so I will report in brief a case:

You had a very interesting article in your Journal some three or four months since, on Surgery of the Fingers. I have not the number at hand or I would give exact title and author.

In this case A. R. K., a grocer, while cutting a piece of rope the knife slipped, completely severing the end of left forefinger—first third of first joint. The portion excised fell into a box and was immediately readjusted by the said A. R. K. He came at once to my office where it was retained by adhesive straps and antiseptically treated. This occurred on July 25th.

I just saw the case—and the union is so complete that it does not show even the line of union. I judge such cases are not very common, where a completely excised part unites and continues to do duty.

Yours very truly,

FORDYCE GRINNELL.

Jan. 9, 1920.

Pasadena.

## State Medical Society

The council convened January 24th in San Francisco at which the matter of the industrial insurance fee schedule was continued. The whole problem is now in such a state that some direct action can be taken which shall be to the advantage of the profession. These council meetings have been very fully attended and the councilmen have been most faithful in their service to the society. The deliberations and the committee work represent a great deal of labor. The problem becomes more complex the more it is investigated, and, while the council feels that the end result is a compromise and not such that will be satisfactory to those of extreme ideas, it must



be conceded that the result achieved is a distinct step in advance and will lead to further improvement in the future.

If you are not receiving your Journal, why? Are you delinquent in your annual dues, or have you changed your location without notifying the State Society office? If neither of these questions can be answered in the affirmative, then communicate with the Secretary of the State Society, 930 Butler Building, San Francisco, so that the matter can be investigated and we can ascertain the reason.

Be sure to send your check for your 1920 dues to your County Secretary. Any member for whom the State Society has received no report for 1920 from his county society by March 1st will have his name taken from the **mail list for the Journal and will cease to have the medical defense protection afforded by the Society until such time as he pays his annual dues and is reinstated.**

It is suggested to the secretaries of county societies that they report payment of 1920 dues as promptly as possible, that is, as soon as they conveniently can do so without waiting until March 1st, the day upon which members become delinquent. Dues are payable **January 1st**, and it will much facilitate the work of the State Society office if the county secretaries will send in reports from time to time as payments are received, instead of waiting until all payments have been received. Where reports are received from all, or nearly all, of the county societies on March 1st, the work of checking is much congested and it is not possible to return the duplicate reports promptly.

Dr. Ethel M. Watters, of San Francisco, has been appointed head of the Child Hygiene Bureau of the State Board of Health. Dr. Watters has long been a member of the State Medical Society and, of course, we heartily endorse the appointment and believe the Board of Health has the right person in the right place.

Officers of the State Society are often asked why the society does not do something to eliminate illegal practitioners. Apparently, the questioner is not aware that this is not one of the functions of the State Society. It is a function of the State Board of Medical Examiners. During the past six years this board has caused the arrest of 528 persons alleged to practice medicine without licenses. It has secured the conviction in 238 cases.

This illustrates how difficult it is, even where the evidence is carefully worked up, to secure a conviction before a jury in the case of an infraction of the Medical Practice Act. A specimen of this is the case of Shew Ping, a Chinese herb doctor in Oakland. Here the State Board of Medical Examiners presented convincing evidence that the man was practicing medicine without a license, in spite of which the sentimental jury decided he was not guilty. They took upon themselves the prerogative of judging the law. Their verdict amounted to saying that while the man did transgress the law, in this instance the law was an unjust one.

While we have this sentimentality to contend with in juries, we will always have a repetition of this miscarriage of justice and the work of the Board of Medical Examiners is correspondingly made more difficult. By slow degrees, however, the power of medical education through the concerted endeavor of organized medicine will bring a change in this situation.

All communications regarding advertising,

changes of address, non-receipt of the Journal, or inquiries pertaining to things appearing in the Journal should be sent to the Secretary of the Medical Society, 930 Butler Building, San Francisco, Calif.

## County Societies

### ALAMEDA COUNTY

Officers, Councilors, Delegates and Alternates elected December 15, 1919:

President, Dr. C. W. Page; Vice-President, Dr. Alvin Powell; Secretary-Treasurer, Pauline S. Nusbaumer; Councilors—Dr. L. P. Adams, Dr. W. A. Clark, Dr. W. H. Streitmann, Dr. Daniel Crosby, Dr. Geo. G. Reinle, Dr. C. L. McVey.

Delegates—Dr. P. S. Nusbaumer, Dr. Geo. Reinle, Dr. Daniel Crosby, Dr. W. H. Streitmann, Dr. R. T. Legge, Dr. M. L. Emerson.

Alternates—Dr. W. A. Clark, Dr. T. J. Clark, Dr. P. F. Abbott, Dr. G. E. Brinckerhoff, Dr. David Hadden, Dr. T. C. McCleave, Dr. S. H. Buteau, Dr. W. H. Irwin, Dr. H. G. Thomas, Dr. C. A. DePuy.

The regular monthly meeting of the Alameda County Medical Association was held Dec. 15th, 1919. There was an interesting program:

Dr. Dudley Smith explained the aims and achievements of the League for the Conservation of Public Health.

A paper memorializing the members lost to the society through death was read by the President, Dr. W. H. Streitmann. The following is a list of those of whom the society has been bereft:

Dr. A. S. Kelly, Dr. Ellsworth Bailey, Dr. A. F. Cunningham, Dr. F. R. Musser, Dr. Geo. Kretzinger, Dr. J. B. Wood.

Plans of the Highland Hospital, the new County institution, were presented and explained by Dr. R. G. Brodrick. The new hospital, as projected, will, in completeness of detail, be second to none in the United States, and this, in connection with the remodeled San Leandro Hospital, and the Arroyo Sanatorium, will give the county a bed capacity of something over one thousand.

As retiring President, W. H. Streitmann spoke convincingly upon the necessity for the dissolution of cliques and factions, and the advisability of harmonious co-operation.

This being the annual election, the following were declared elected to office:

President, Dr. Walter Page; Vice-President, Dr. Alvin Powell; Secretary-Treasurer, Dr. Pauline Nusbaumer.

On January 5th the regular monthly meeting of the staff of the Samuel Merritt Hospital was held.

Dr. Mark L. Emerson gave an interesting talk about his recent visits to hospitals and clinics in New York, Rochester and Chicago.

A survey of urological routine in practice at Samuel Merritt Hospital was presented by Drs. Geo. G. Reinle and E. Spence DePuy.

In this report the authors said in substance: In order to make a diagnosis in urological cases is it necessary to observe the utmost care about a multiplicity of minor details. The technique of routine handling of patients from the time of entrance to the final assembling of the findings was presented and the reasons for, and the advantages to be derived from each step set forth. It was clearly shown that the routine now in practice has been brought to as high a standard as that in use at any institution doing

urological work. In conclusion, plates of unusual ureter-pyelograms were presented.

The following officers were elected for the ensuing year:

President, Dr. H. N. Rowell; Vice-President, Dr. Chas. Dakes; Secretary, Dr. Robt. Glenn.

There has been much activity in the affairs of the Oakland Public Health Center. Announcement was made January 7th, of the choice of Dr. Alvin Powell, Oakland physician and surgeon, to be director, and to have charge of the medical supervision of schools for Oakland and Berkeley. He will succeed Dr. Richard Bolt, whose resignation was accepted by the Board of Education.

Dr. Powell has resided in the Eastbay section most of his life. He has been on the staff of Merritt Hospital and otherwise identified in important ways with the medical profession in this county.

Dr. Bolt resigned to go to Washington, where he will be director of the newly reorganized American Child Hygiene Society.

The Public Health Center has been busily renovating the building on Thirty-first and Grove Streets in preparation for the complete organization of clinics. The clinics will be operated at the present site during the construction of the new building which will be located adjacent to the Municipal Auditorium on a block of land situated at Second Avenue and East Eleventh Street.

Many of Oakland's leading physicians are to act as chief of clinics operated under the auspices of the Health Center.

The following is the personnel of the various staffs:

General Medical—Chairman of committee, Dr. W. H. Strietmann. Chief of staff, Dr. C. L. McVey.

General Surgical—Chairman of committee, Dr. Lemuel Adams. Chief of staff, Dr. Alvin Powell.

Assistants, Drs. W. B. Allen, F. S. Herrick, H. S. Thompson, F. R. Makinson, L. H. Dyke, G. Rothganger, J. L. Lohse, W. E. Mitchell.

Urology and Skin—Chairman of committee, Dr. Thos. Clark. Chiefs of General Urology, Dr. Geo. G. Reinle, Dr. E. Spence DePuy. Chief of Skin, Dr. Thos. Clark. Chief of Venereal, Dr. A. M. Meads.

Pediatric Clinic Committee consists of: Drs. L. R. Kindall, Thos. McCleave, Lillian Shields, S. L. Shuey, Clifford Sweet, Florence Sylvester, W. S. Wood. Clinic in charge of Dr. Eugene Barbara.

Neuro Psychiatry, Two Departments—Psychiatry, Dr. Eva Reid. Neurology, Dr. P. J. Anderson, Dr. Lynch.

Gynecology and Obstetrics—Chairman, Dr. Ewer. Present clinic in charge of Dr. Barber, Dr. Loomis, Dr. Wills.

Orthopedic—Chairman and chief, Dr. Walter I. Baldwin. Present clinic in charge of Dr. Fiebush, Dr. Parker.

Eye, Ear, Nose and Throat—Chief, Dr. Thomas. Associates: Dr. J. W. Calkins, Dr. F. W. Edmonds, Dr. M. H. Shutes, Dr. F. N. Shook, Dr. S. W. Wythe, Dr. R. S. Williamson, Dr. H. B. Christianson, Dr. H. S. McKean.

Tuberculosis—Chief, Dr. Von Adelung. Clinic in charge, Dr. Von Adelung, Dr. Abbott, Dr. Channell, Dr. McVey.

At a meeting of the Health Center a paper on Physio-Therapy was read by Dr. Mark L. Emerson. The author said in part:

"It appears to me that all surgeons associated with industrial surgery should endeavor to work

along these methods advised by Dr. Morton Gibbons, of shortening the time of delayed function following fracture and bodily injuries. Over 3,000,000 working days were lost during 1917 from 300,000 injuries in the United States. This great economic loss is making great inroads on the industrial problem. Many cases of simple fracture of Tibia, for example, wherein the average disability should be 4½ months, often go 12 and 18 months because of delayed function, after the fracture has healed."

Active Physio-Therapy would greatly shorten the period of disability, as well as to reduce the percentage of permanent disability in many cases. Dr. Emerson cited a case rated as permanent disability of ankle joint following fracture of lower end of Tibia and Fibula with dislocation of the joint. After twelve weeks of active Physio-Therapy the delayed function of joint was completely restored.

Figures supplied by Steward Frank Davison of the Emergency Hospital show that 470 less cases were handled since the dry law went into effect on July 1 than for the previous six months. In all a total of 6612 emergency cases were taken care of during the year.

### MEMORIAL ADDRESS

By W. H. Strietmann.

We live in deeds, not years; in thoughts, not breaths.

In feelings, not figures on a dial.

We should count time by heart throbs. He most lives

Who thinks most, feels noblest, acts the best. —Bailey.

Singularly apropos, it has seemed to me, is the foregoing quotation on an occasion such as this.

"We live in deeds, not years." As we look back over the roll of those of our members who have made their last visits, we find that none of them completed the allotted three score and ten years. Two of them, in fact had not completed the half of the circle.

They lived "in thoughts, not breaths; in feelings, not figures on a dial." Shall we not say, therefore, that the two younger men have lived as full lives as their elder colleagues? All of them were cut short, all too short in their life's work and yet I am sure that many of you, as have I, find among our patients those who mourn the loss of these men not only as their physicians, but as their friends and counsellors.

"We should count time by heart throbs." And if we so count, who lives so long as the physician? Each day brings its heart throbs to the physician and each one finds a responsive chord. The physician who is really worthy of his title finds a not inconsiderable part of his daily work devoted to the relief of mental anguish as well as physical suffering. The practice of medicine is still and I devoutly hope will always continue to be, an art as well as a science; and though we continue to strive for an ever-increasing proportion of science, let us beseech the Almighty never to permit us to forget the human side, or the Art of Healing.

"He most lives, who thinks most, feels the noblest, acts the best." All of these men have faced the fire just as surely as though they had been on the battle front. In three instances at least they contracted their final illness from patients under their care. Two of these, I happened personally to see and both of them felt that they were probably facing the great crisis. They knew whence their illness had come, but there was no word of regret at having done their duty, no thought of what might have been, had they chosen some other than the medical pro-



fession. They have lived long, though their days were short. They have become rich, though their ices were poor. They have solved the problem of life, for they have gained death. We cannot feel sorry for them, rather we must seek consolation for ourselves.

And now if you will please rise we will call the roll.

**Dr. Alexander Simpson Kelly**—Born in Kincardine, Ontario, Canada, January 15th, 1879. Graduate of Cooper Medical College, 1901. Internship in Alameda County Hospital, St. Luke's Hospital and post-graduate study abroad. A former president of this Society and president of the Board of Education of this city. Professor of operative surgery in the Oakland College of Medicine. Died October 24th, 1918.

**Dr. Samuel Ellsworth Bailey**—Born December 2, 1887, at Suisun, California. Graduate of University of California, with degree of B. S., 1909, and of Medical Department, 1912. Lieutenant in U. S. Naval Reserve, serving at Paris Island as Roentgenologist, a position which he formerly held at Fabiola Hospital. Died March 26th, 1919.

**Dr. Arthur Lee Cunningham**—Born near Winsor, Maine, May 9th, 1866. Graduate of Hahnemann Medical College in Philadelphia in 1889. Resident physician Hahnemann Hospital, New York. Came to Oakland, 1890. Member of staff of Fabiola Hospital for 28 years. Member Board of Health 4 years. Died March 3rd, 1919.

**Dr. George Arneke Kretsinger**—Born in Sherman, Pennsylvania, July 3rd, 1888. Graduate University of California Academic Department, 1912, and Medical Department 1915. Internship in San Francisco Hospital. Practiced in Oakland three years. Died September 8th, 1919.

**Dr. Francis Reber Musser**—Born at Quincy, Pennsylvania, June 15th, 1860. Graduate University of Pennsylvania Medical Department, 1885. Resident physician Milwaukee Hospital. Post-graduate, London 1892-93. Specialized in Eye, Ear, Nose and Throat. Member staff Merritt Hospital. Died August 26th, 1919.

**Dr. James Burris Wood**—Born June 13th, 1868. Graduate University of Pittsburgh School Medicine, 1892. Post-graduate Ann Arbor. Came to Oakland in 1896. Board of Health 1900. Board of Education for four years. Professor of Chemistry Oakland College of Medicine, and Physicians and Surgeons College of San Francisco. Died September 9th, 1919.

### CONTRA COSTA COUNTY

The Contra Costa County Medical Society held its annual banquet at the Hotel Oakland on the evening of November 29, 1919, after which the entire party went to the Orpheum Theater for a good laugh.

All present pronounced the meeting one of the most enjoyable in the history of the Society.

Those present were: Dr. and Mrs. W. E. Cunningham, Dr. and Mrs. C. R. Leech, Dr. and Mrs. Clyde T. Wetmore, Dr. and Mrs. P. C. Campbell, Dr. and Mrs. H. L. Carpenter, Dr. and Mrs. U. S. Abbott, Dr. and Mrs. C. R. Blake, Dr. and Mrs. Hall Vestal, Dr. and Mrs. C. C. Fitzgibbon, Dr. and Mrs. G. M. O'Malley, Dr. and Mrs. C. L. Abbott, Dr. and Mrs. Charles Lip, Dr. H. N. Belgum and sister, Dr. W. A. McCullough.

### LOS ANGELES COUNTY

Los Angeles County Medical Association, Friday Morning Club, December 4, 8 p. m., in Joint Meeting with the Southern California Medical Society.

Dr. E. W. Burke of Redlands presiding, spoke

on "Medical Readjustments following the War." He dwelt on medical standards, England's new ministry of health, and that there were 25,000 professional men in the war who seek to continue in private practice what they did in the war.

Dr. Walter V. Brem, the newly elected President, then was escorted to the chair.

Dr. Karl F. Meyer, of San Francisco, spoke on "The bacteriological contents of milk and its relation to health and disease." He stated among other things that pasteurization does not destroy the vitamins or enzymes of the milk and that certified milk is not free of germs; that they are due to poor help who change so often that only the sick ones can be visited, that it would be better in all cases to Pasteurize the milk. He called attention to the fact that commercial dairies are getting better so that there is less use for certified milk.

Dr. C. H. Criley's subject was "Shifting Hernias."

He gave a brief description of ordinary sacular hernia and of sacless type, also of intermediate para-sacular sliding variety. Description of cases, seven involving the large bowel and two the bladder. All were typical inguinal hernia; diagnosis is possible only on operation. Discussion of etiology of this type of hernia from embryologic as well as pathologic standpoint followed. Differentiation between sliding or para-sacular and the ordinary hernia with secondary adhesions was defined.

The discussion by Dr. H. O. White was from an anatomical standpoint and emphasized the relationship of the involved viscera to the general peritoneum and to the sac and the relations of the blood and nerve supply and their significance.

Discussed by Dr. Wm. Duffield were the difficulties in identifying structures, and the surgical technic, especially separating and freeing the viscera, for replacement, and in disposition of the sac.

Dr. Wm. T. McArthur in the chair called for the annual reports of the various committees which were all approved.

Dr. Harlan Shoemaker, the Secretary, reported that the total dues for the year were \$12,542.75.

Dr. Duffield said that the Secretary failed to mention that with the beginning of the year the society owed \$1029 and that now there are \$1012 in the bank. The saving was accomplished in the matter of printing and luncheons. The printing bill of last year was \$2000 and the postage bill was nearly \$1000.

Dr. Mattison reported the annual work of the Milk Commission. He spoke about the Adolr Dairy, the Arden Dairy, with a daily output of 2000 quarts and the Cold Spring Dairy with 1000 quarts daily. Regardless of the commission's many expenses, it could defray the cost of Dr. Meyers coming here and of Dr. Powers going south to the milk convention. Of the \$150 given Dr. Powers for expenses, \$60 were returned by him as left over, leaving a total of \$2703. Dr. Mattison spoke also of Dr. Meyers' comments on commercial dairies.

Dr. Cole moved that a vote of thanks be extended to Dr. Mattison's committee, and this was unanimously carried.

Dr. Rae Smith reported on "Hospital Efficiency," saying in substance that all equipments have been improved.

Dr. J. H. Seymour gave a resumé of the "Progress of Medical Education" and compared the medical courses of 25 to 30 years ago with those of the present time.

Dr. Frank L. Norton on "Outpatient Dispensaries," said that the majority of them are commendable for the good they do, but that a small percentage of them were not. Some clinicians

were unscrupulous and ran the clinics for their own gain and used them as advertisements. The County Medical Association, he said, should pass upon the management and qualification needed in the dispensaries. The standards established should be enforced on members and non-members alike. No one should be permitted to enhance his own interests.

Dr. Cole said that the work of the committee of the Outpatient Dispensaries and its recommendations should be acted upon by the society.

Dr. Norton stated that the committee could only investigate and report conditions as it found them.

Dr. Wenzlick reported as county editor, that it was not negligence on the part of anyone when some papers limited to 300 words solicited by him for publication did not appear, but that it was simply lack of funds and therefore lack of space in the Journal. Neither Dr. Reed, the editor, nor Dr. Pope, the secretary, could now do otherwise. More space and better conditions will no doubt come with greater prosperity.

Dr. Shoemaker, the secretary, said that in the absence of Dr. Kress, the report on "Public Health" and also Dr. Kress' "State Medical Association Compensation Insurance" work, will appear in the County Bulletin.

Dr. Wiser gave the report of tellers on the election of officers as follows:

Dr. Rae Smith, President; Dr. John V. Barrow, Vice-President; Dr. Harlan Shoemaker, Secretary-Treasurer; Drs. Wm. T. McArthur, E. T. Dillon, and John C. Ferbert, Councilors.

Dr. Wm. T. McArthur, in retiring as president, spoke of the trust the society had bestowed on him and that he hoped herewith to return the same satisfactorily to all concerned. Among other pleasant things, he mentioned that the society owes the secretary, Dr. Shoemaker, and his assistant Miss Gilman, a debt of gratitude.

Drs. Hastings and Warner then conducted the newly elected president, Dr. Rae Smith, to the chair, who in a few well chosen words continued the session.

Under miscellaneous business, Dr. Duffield urged the investigation of the nursing question and made a motion that a committee be appointed for the consideration of that proposition. The motion was unanimously carried.

Just before adjournment a motion was made and unanimously carried, to extend the society's appreciation and thanks to our respected and beloved past president, Dr. Wm. T. McArthur.

#### Address by Governor Stephens.

Denunciation of the "Reds" in this State was the keynote of an address by Governor W. D. Stephens, the guest of honor at the dinner tendered to returned members of L. A. County Medical Association at the Hotel Alexandria, December 10. Three hundred and fifty diners applauded the Governor.

The Governor was introduced by Dr. W. W. Beckett, the toastmaster.

It was announced at the dinner that 319 of the members of the association saw service in the war.

Congressman H. Z. Osborne, speaking on "The Spirit of 1917," paid a sincere tribute to the patriotic service of the medical men.

Dr. Granville MacGowan, speaking on "The Obligations of Citizenship," scored the Bolshevik and unpatriotic elements of the country, saying:

"It is largely the task of the disbanded army to defend your flag against false doctrines. There is no place in Bolshevism for a self-respecting doctor of medicine. In the cradle of the American Legion rests the babe who will grow to rule this country for the next thirty years."

The regular meeting of the Pasadena Branch

of the L. A. County Medical Society was at the Pasadena Hospital, at 8 P. M. Tuesday, December 9, 1919.

Dr. J. B. Luckie discussed "The Use of Proteids in the Etiological Diagnosis of Asthma."

Dr. J. S. Hibben gave a paper on "The Epidemiological Survey of Diphtheria in Pasadena since January, 1919."

#### Personals.

To engage in medical and missionary work in Japan, China and Korea, Dr. Irving M. Feldkamp of Los Angeles has filed application for passports. He will be accompanied by his wife and two children.

Edward B. Haskamp, 1626 Lakeshore Avenue, filed application for passports to Argentina to visit relatives. He will be accompanied by his wife and two children.

George Piness, M.D., 609 Brockman Bldg.

Joseph R. Shuman, 620 Brockman Bldg.

Practice limited to diseases of children.

C. T. Sturgeon, M.D. Returned from service, practice limited to surgery. Merritt Bldg.

#### More Inspectors Asked by Dr. Powers.

In order to take care of the department's increasing work, Health Commissioner L. M. Powers has asked the city council to allow him two more inspectors. Dr. Powers points out that as the city grows, consumption of meats increases, and all animals slaughtered for this market have to be inspected.

#### L. A. Churches Form League for Healing.

Determined to revive the "lost power" of healing which Christ bestowed upon the church through his disciples when he commanded them not only to "preach" but to "heal" as well, Los Angeles ministers and members of churches met December 8 in the Y. M. C. A. auditorium and organized for work. They resolved to meet the need of this reconstruction period by seeking to restore to the church its healing power. The subject discussed was "Healing and the Churches."

Asserting that the commission of Christ called for "the laying on of hands" in bringing health to the ill, the clergymen and laymen deplored that healing had been a "lost art" in the church for more than 1500 years, and enthusiastically opened their campaign to "minister to the whole man, physically, mentally and spiritually." This will be worked out along "Biblical, scientific and common sense lines," they declared.

The following officers of the new league were elected: Dr. Gifford, president; Rev. Dr. George A. Andrews, vice president and treasurer; Rev. George Monkman, secretary, and Rev. C. F. Winbigler, advisor and director. The name of the organization adopted at the meeting was "The Christian League of Healing and Helpful Service"

#### Pupils Here Must Pass Medical Test.

In reply to a ruling in one of the courts of the state that health officers have no right to examine school children against the wishes of their parents, Dr. J. L. Promeroy, county health officer, December 18 issued a statement that in this county if parents refuse to give consent the whole family will be placed under quarantine until such consent is given.

"I understand that Judge O'Donnell of Salinas has ruled we cannot examine without parental consent," said Dr. Promeroy. "Conditions in Los Angeles county differ from those in others. Here among the school children we have a large number of Japanese and Mexicans who are constantly under suspicion of being infected with a contagious disease and whose parents frequently



object to having them medically examined."

#### Clinic for "Dope" Victims Provided.

In compliance with recent suggestions from Internal Revenue Collector John P. Carter and others the city council yesterday provided funds for the establishment in the Temple Block of a Clinic for the treatment of "dope" addicts. The clinic will be provided with a clerk, a pharmacist and a physician.

#### ANNUAL MEETING OF SOUTHERN CALIFORNIA MEDICAL SOCIETY.

Opening session, December 3rd, 2 p. m.

##### Business.

Reading of Minutes.

Report of Officers.

Appointment of Committees.

##### PROGRAM.

"Neurological Observations and Suggestions for and Against Operations on the Spine and Skull," J. T. Fisher, M. D., Los Angeles.

"The Present Trend and State of American Vitality," Chas. L. Curtis, M. D., Redlands.

"Sliding Hernia," C. H. Criley, Los Angeles.

**Wednesday Evening Session—Dec. 3rd, 8 o'clock.**

##### PROGRAM.

"Varicocele of Broad Ligaments," Roy E. Fallas, M. D.

"Hospital Standardization," Dudley Fulton, M. D.

"The Skin as an Index of Health," Moses Sholtz, M. D.

#### Thursday Morning Session.

#### Thursday Afternoon Session.

Business: Election of Officers.

##### PROGRAM.

"The Operative Treatment of Halux Valgus from an Orthopedic Standpoint," John C. Wilson, M. D., Los Angeles.

"Abscess of the Liver," W. W. Roblee, M. D., Riverside.

"Hypotension Headache," E. C. Fishbaugh, M. D., Los Angeles.

#### Los Angeles Surgical Society.

Regular meeting December 12th, 8 o'clock.

##### PROGRAM.

"Treatment of Carcinoma by the Percy Method of Cauterization," J. F. Percy, M. D., Galesburg, Ill.

The members of the Los Angeles County Medical Association are invited to be present.

#### Harbor Branch of Los Angeles County Medical Association.

Regular meeting November 28th.

##### PROGRAM.

"What the Physician Should Know About Otolology, Rhinology and Laryngology," Dr. R. B. Sweet.

"Anesthesia," Dr. C. O. Waterman.

"Vaccine Therapy in Pertussis," Dr. J. Stanford Gwaltney, San Pedro.

"Antitoxin Therapy in Tetanus," Dr. G. H. Galbraith.

"Serum Therapy in Meningitis," Dr. W. D. Moore, San Pedro.

Dr. Robert Dodsworth, recently from foreign service, will be the guest of the society.

Business, election of officers for the coming year.

#### Los Angeles Obstetrical Society, a Section of Los Angeles County Medical Association.

Regular meeting December 9 at 8:15.

##### PROGRAM.

"Orthopedics in Relation to Obstetrical Practice," Dr. Ellis Jones (by invitation).

"Treatment of Placenta Previa," Dr. E. M. Lazard.  
"Impetigo in the New-Born," Dr. M. H. Ross.

#### Southern California Society of Anesthetists.

Regular meeting December 2nd.

##### PROGRAM.

"Gas-oxygen Analgesia and Anesthesia in Obstetrics," R. F. Hastreiter, M. D.; Eleanor Seymour, M. D.

#### Western Surgical Society.

Drs. Clarence Moore and Maurice Kahn are two of our members who are attending the annual meeting of the Western Surgical Society which is to be held in Kansas City, Mo., on the 5th and 6th of December.

Report of Auditing Committee.

#### Pasadena Branch.

Officers for 1920 elected November 28th, 1919: President, F. G. Mattison, M. D.; Vice-President, J. H. Byeyer, M. D.; Secretary-Treasurer, Caroline McQuiston, M. D.; Councillor, C. H. Parker, M. D.; C. F. Metcalf, Secretary-Treasurer.

#### Harbor Branch.

Officers for 1920 elected November 28, 1919: President, R. H. Shippey, M. D., Long Beach; Vice-President, W. D. Moore, M. D., San Pedro; Secretary-Treasurer, B. M. D. Von Weidelsadt, M. D., Long Beach; Councillor, G. H. Galbraith, M. D., Long Beach. Frank Minkels, M. D., Secretary-Treasurer.

#### Pomona Branch.

Officers for 1920 elected November 18th: President, Paul W. Newcomer, M. D., Pomona; Secretary, W. H. Eaton, M. D., Pomona; Councillor, Chas. L. Bennett, M. D., San Dimas.

#### Los Angeles Clinical and Pathological Society.

Annual Conversational Dinner December 15th, 6:30 p. m.

##### PROGRAM.

"The Effects of Prolonged Malnutrition on the Human System," Dr. Alonzo E. Taylor, Professor of Physiological Chemistry at University of Pennsylvania.

#### The Innominate Society.

December 10th, 1919.

##### PROGRAM.

1. Polycythemia with Splenomegaly, Dr. W. A. Swim.
2. Low Blood Pressure Headaches, Dr. E. C. Fishbaugh.
3. Some Deductions from War Experiences in Bone and Joint Surgery. Presentation of two cases, Dr. W. T. Rothwell.

#### MARIN COUNTY

Our society is taking advantage of the Extension Course offered by the State Medical Society, and have had three lecturers already and expect to take in the whole list.

The lecturers and their subjects are Dr. Saxton Pope, "Shock and Transfusion"; Dr. Walter C. Alvarez, "Recent Advances in Gastro-Intestinal Physiology," and Dr. T. Addis, "The Diagnosis of Nephritis."

We have found these lectures both interesting and instructive and the attendance of the members has been very good, showing their appreciation of the subjects and the public spirit of the lecturers who thus give their time and strength for the benefit of the medical profession.

The following officers of the society have been elected for the year 1920:

President, John Henry Kuser; Vice-President, Harry O. Hund; Secretary-Treasurer, W. F. Jones; Delegate to the next meeting of the State Medical Society, L. L. Stanley; Alternates, A. H. Mays and W. F. Jones.

**MERCED COUNTY**

The doctors of Merced met at the office of Dr. D. W. Zirker, who as last president of the Merced County Medical Society called a meeting for the reorganization of the society. All of the medical men of the county who were in war service have now returned and wanted to get the society on an active basis again, as it had lapsed into inactivity.

The former officers were re-elected to serve for the year 1920, with the exception of the secretary, Dr. H. Kylberg, who has moved to Merced Falls, and wished to be relieved on account of absence from the county seat and meeting place. Dr. Brett Davis was elected secretary.

The secretary was instructed to write to the secretary of the state society and find out the state dues, any changes in the by-laws or activities of the state society, and also if the state society had taken up the question of changing the fees for attending cases of industrial accident injuries making them more commensurate with present living conditions and wages paid the laborer and others.

The local fee schedule for medical and surgical attendance was discussed and modified to present conditions.

**SAN FRANCISCO COUNTY.****Society Meetings.**

Proceedings of the San Francisco County Medical Society.

During the month of December, 1919, the following meetings were held:

**Tuesday, December 2—Section on Medicine.**

Lane Hospital Clinical Evening.

Meeting held at the Hospital.

1. Demonstration of skin lesions treated with radium.—H. E. Alderson.
2. Demonstration of cases treated with radium.—Monica Donovan.
3. An operation for tuberculosis of the tarsus, tuberculosis of knee and hip.—L. W. Ely.
4. Some unusual myomata.—L. A. Emge.

**Tuesday, December 9—Annual Meeting.**

1. Address of President.
2. Reports of Secretary, Librarian and Committees.
3. Election of Officers, Board of Directors and Delegates.
4. New method of intra-abdominal diagnosis, illustrated.—W. C. Alvarez.
5. Encephalitis lethargica.—O. G. Freyermuth.
6. Paroxysmal tachycardia and other arrhythmias in one individual.—Harry Spiro.

**Tuesday, December 16—Section on Surgery.**

Election of Section Officers for 1920.

1. Lantern views of diverticula and sacculae of the urinary bladder, showing some rare pathological conditions associated with their progress.—Martin Molony.
2. The control of hemorrhage.—A. S. Keenan.
3. Surgical experiences in France. Illustrated.—Sterling Bunnell.

**STANISLAUS COUNTY.**

At the regular annual meeting of the Stanislaus County Medical Society, held in Modesto Dec. 12, the following officers were elected for 1920:

President, Dr. F. W. McKibbin, Oakdale; Vice-President, Dr. E. V. Falk, Modesto; Secretary and Treasurer, Dr. E. F. Reamer, Modesto; Censors—Dr. C. B. Benson, Riverbank, 1 year; Dr. A. M. Field, Patterson, 2 years; Dr. S. W. Cartwright, Modesto, 3 years.

A Fee Bill, covering largely the work of physicians outside of surgical work, was adopted. This is to be signed by the members of the County Society and others who will.

**YOLO COUNTY**

At the last meeting of this society the following officers were elected: President, Dr. M. B. Bransford; secretary treasurer, Dr. Charles H. Christal.

**Post-Graduate Schedule****COLLOQUIA SAN FRANCISCO HOSPITAL.****Surgery.**

- Feb. 5th—O'Connor, Rixford.  
 " 12th—Bunnell, Girard.  
 " 19th—Hartmann, Eloesser.  
 " 26th—Graham, Rixford.  
 Mar. 4th—O'Connor, Rixford.  
 " 11th—Ryfkogel, Girard.  
 " 18th—Hartmann, Eloesser.  
 " 25th—Graham, Rixford.

**Medicine.**

- Feb. 6th—Neurology.  
 " 13th—Pathology.  
 " 20th—General Medicine.  
 " 27th—Neurology.  
 Mar. 5th—General Medicine.  
 " 12th—Dermatology.  
 " 19th—Pathology.  
 " 26th—General Medicine.

**SAN FRANCISCO****Stanford University Medical School**

Lane Hall, Sacramento and Webster Sts., 8 p. m.

**POPULAR MEDICAL LECTURES 1920**

January 9, 1920—The cause and prevention of nervousness.—Dr. Julian Mast Wolfsohn.

January 23, 1920—The philosophy, cause and prevention of disease.—Dr. Walter V. Brem, Los Angeles.

February 6, 1920—The hospital and the public.—Dr. William Raymond Dorr, Superintendent of St. Luke's Hospital, San Francisco.

February 20, 1920—The out-patient clinic as a health center.—Dr. Alfred Cummings Reed.

March 5, 1920—The problem of the drug addict.—Dr. Robert Eugene Bering.

March 19, 1920—The health age.—Mr. Celestine Sullivan, Executive Secretary, League for the Conservation of Public Health.

**Notice**

The annual meeting of the Western Section of the American Laryngological, Rhinological and Otological Society will be held in Los Angeles on Saturday, Feb. 21, 1920, at the Friday Morning Club House, 940 South Figueroa Street.

**Hospital Service Department****THE MODEL COMMUNITY SERVICE HOSPITAL.**

By W. E. MUSGRAVE, M. D., San Francisco.

Perhaps the best "follow up" of the more or less general discussion started in these columns last month is to submit a skeleton outline of a Model Community Service Hospital.

In subsequent notes it will be advisable to discuss some of the "thousand and one" problems inherent in the operation of this or any other organization anywhere, as well as some of the special modifications necessary to adjust the model to meet special conditions in special communities, with their great variation in available assets, peculiarities and needs.

No claim is made that this is the only model, or even the best one under all conditions, but it is a good one that is admirably suited to form a basis for discussion of the fundamental problems that occur in any hospital organization and which must be solved before the institution can take its



place in the community as a public utility station, efficiently discharging a community service in health to the satisfaction of the public, the medical profession and the patients.

**Organization.**—A community service, non-profit-making corporation; capital stock \$....., stockholders to pay 5 per cent. semi-annual dividends on their stock. Failure to pay dividends for one year forfeits stock to the treasurer for re-issue. Stock transferable only on the books of the corporation by permission of the board of directors.

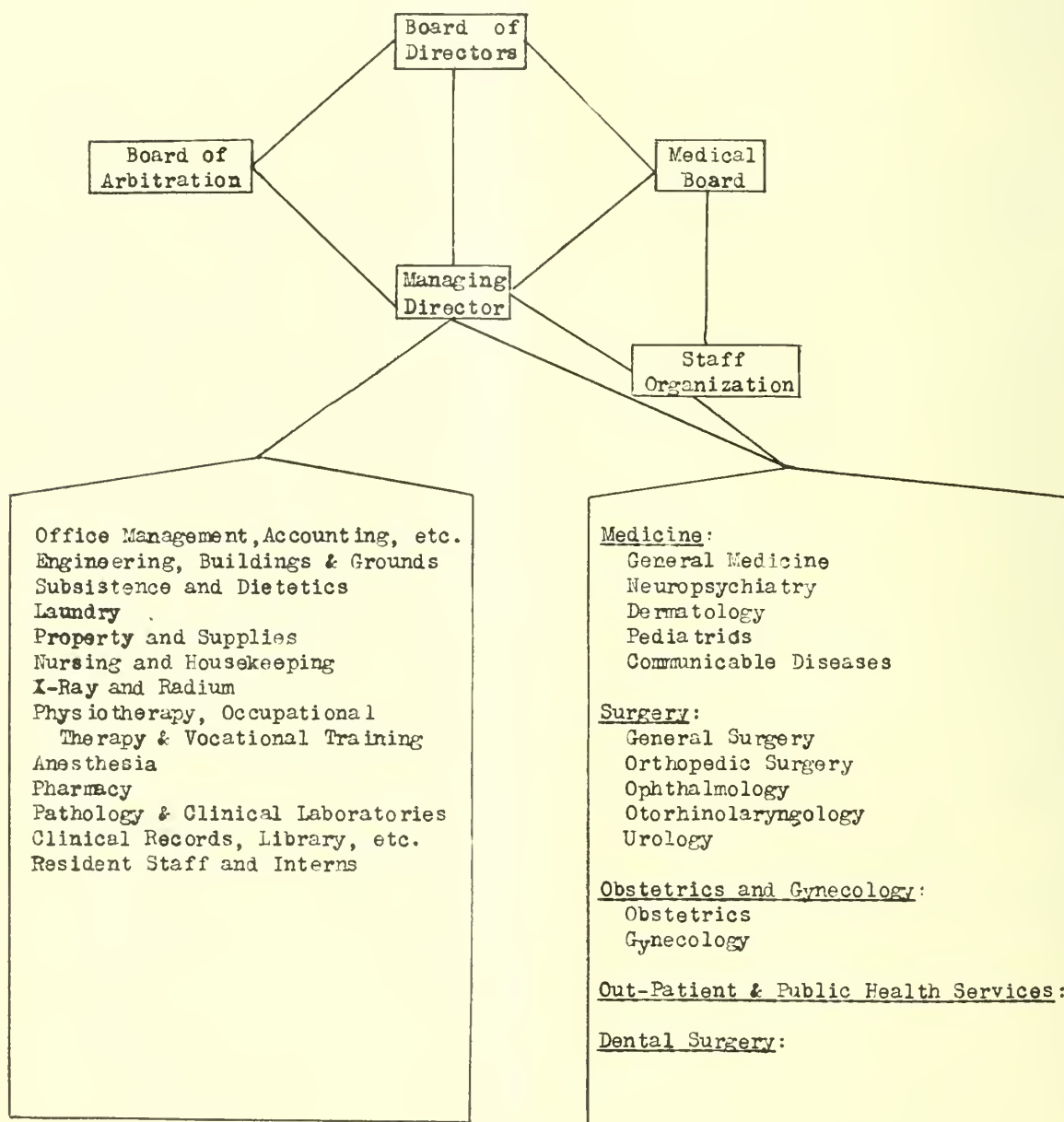
**Board of Directors.**—Stockholders shall elect, or re-elect, a board of seven directors annually. Board members shall be representative citizens holding

property and resident in the community. Physicians who are practicing their profession are not eligible. The board of directors shall have power in all matters pertaining to the hospital, similar to those powers exercised by boards of directors in the business world. They shall elect the usual officers and appoint the usual committees of such an organization and assign their duties. The managing director (see below) shall be a non-voting member of the board and its executive officer.

**Medical Board.**—The Council of the Medical Society, the chairman of the staff organization and the managing director ex-officio shall constitute the medical board. The medical board shall approve all appointments to the staff as to de-

### MODEL COMMUNITY SERVICE HOSPITAL

#### SCHEMATIC OUTLINE OF ORGANIZATION



sirability; it shall approve all policies and plans bearing particularly upon the professional work of the hospital. All interpretations of ethics shall be by this board. Matters purely medical, arising in any part of the hospital, which are of sufficient importance, may be referred to this board for consideration.

**Board of Arbitration.**—The Section for the Advancement of Medical Education and Science of the League for the Conservation of Public Health, the Medical Board of the University of California Medical School and Hospitals, a similar board of Stanford University, the Council of the State Medical Society or other competent, permanent and disinterested organization, as may be elected by the hospital directors, shall act as a board of arbitration in all matters pertaining to the hospital. Differences between the board of directors and the medical board, or between any two or more factions, over the solution of any matter, may be referred to the board of arbitration, whose opinion, after due investigation, shall be final and binding upon all parties.

**Staff Organization.**—There shall be a staff organization which shall consist of all members of the visiting staff. It shall have the usual officers elected by the staff. The executive committee shall consist of its president and secretary and the chairman of each active service.

**Staff Department Organization.**—Each active service or staff department shall have as many members as are elected. The members of each individual department or service, such as medicine, surgery, etc., shall elect its own chairman annually, or as vacancies occur. The chairman of each staff department shall during his tenure of office be the executive officer, responsible for the activities of his particular field of professional work.

**Staff Membership.**—Members of the staff shall be appointed, or reappointed, annually by the medical board as to qualifications and approved by the board of directors. The staff shall meet in stated meetings twice a month. Absence from any three consecutive meetings without explanation satisfactory to the staff, and noted in the minutes, automatically terminates the member's appointment. The staff shall have the usual officers and committees. Insofar as conditions will permit, the staff will be organized into departments and services as follows:

**Medicine**—Including general medicine; pediatrics; dermatology; neuropsychiatry; communicable diseases.

**Surgery**—Including general surgery; orthopedic surgery; ophthalmology; otorhinolaryngology; urology.

**Obstetrics and Gynecology**—Including obstetrics and gynecology.

**Out-Patient and Public Health**—Including such clinics; public health nursing and co-operative arrangements with other organizations as finances will allow and the needs of the community demand.

**Managing Director.**—The managing director (manager, superintendent or what not), shall be the executive officer of the hospital in all its activities and functions. He shall be a non-voting member of the board of directors, a non-voting member of the medical board and a non-voting member of the staff organization. He shall be, preferably, a physician, or if a medically trained man is not available, a layman, with experience sufficient to handle all complicated problems. He should be a full time officer, without the right to engage in private practice. He should have under his immediate direction the departments of:

1. Office management, accounting, etc.
2. Engineering, buildings and grounds.
3. Subsistence and dietetics.

4. Laundry.
5. Property and supplies.
6. Nursing and housekeeping.
7. X-Ray and radium.
8. Physiotherapy, including occupational therapy, vocational therapy and therapeutic shops.
9. Anesthesia.
10. Pharmacy.
11. Pathology and clinical laboratories.
12. Clinical records and library.
13. Resident staff and interns.

In addition, he shall exercise administrative functions in the professional staff departments outlined elsewhere. He shall regulate the employment and duties of all technical, semi-skilled and unskilled employees.

## Clinical Department

### Case Histories From the Children's Department University of California Medical School and Hospitals No. 2

AGE 11 YEARS. AMERICAN. MALE.

**Complaint.**—Difficulty in breathing. Shooting pains over the heart.

**Family History.**—Father living at the age of 59 years. Has multiple sclerosis.

Mother living at the age of 45 years, confined to bed with asthma, chronic bronchitis and exophthalmic goitre.

Two brothers living and well at the age of 17 and 15 respectively.

There is a history of rheumatism in the paternal family.

**Past History.**—Full term, normal delivery, bottle fed infant, with normal development. Pneumonia at the age of 6. Measles at the age of 8. Varicella at the age of 9, mumps at the age of 10. Other than for an attack of moderately severe tonsillitis 8 months before entry, the remainder of the past history is negative.

**Present Illness.**—The boy had always been strong and healthy until four weeks before entry, when he fell, injuring the right knee over the patella. An abscess formed and two weeks later was incised and drained, apparently healing well. Coincidentally, however, there developed malaise and listlessness. He had been up and about until four days before entry when fever and precordial pain were first noted. Two days later rapid heart action developed, and dyspnoea became pronounced.

There was no history of chorea or of rheumatism. There had been no urinary symptoms, the gastro-intestinal tract had apparently functioned properly, and there had been no superficial or deep local infections other than the abscess noted above.

He was sent into the hospital by a charitable organization on December 1st, with the diagnosis of pneumonia.

**Physical Examination.**—T. 41°. P. 120. R. 78. B.P. (systolic 115). Diastolic 55.

Very well developed and nourished boy, extremely dyspnoeic, perfectly rational, complaining of sharp pains in the region of the left nipple. **Skin**, slightly "muddy," cheeks flushed, **sclerae** slightly injected. **Mucosae** fair color, slightly bluish. No herpes. **Eyes**, and eye muscles negative. **Nose**, slight, dried brownish discharge. **Breath** very foul. **Teeth** covered with sordes. **Tongue** coated. **Pharynx** injected. **Tonsils** moderate size, chronically infected, superficial lymph nodes, enlarged, discrete, painless.



**Chest**—Well developed, left slightly larger than right.

**Lungs**—Movement at the bases diminished; no areas of dullness determined; breath sounds everywhere higher-pitched than normal and with a few bronchitic rales. Otherwise negative.

**Heart**—Impulse diffuse, maximum in the 5th space just inside the nipple line. Faint, palpable systolic thrill over lower precordia. Dullness (relative) 10.5 c.m. to the left in 5th space (4 c.m. outside nipple line) (absolute) 2.5 c.m. outside nipple line, 8 c.m. in the 6th space, 5 c.m. on the right at the 2nd rib above and 6 c.m. on the left at the same level. Sounds irregular, indistinct, impure at the apex, fairly loud but impure at the base with roughening and tendency to re-duplication. P2 louder than A2 and accentuated, re-duplicated. Rough systolic murmur at the base, faintly heard at the apex, louder in the axilla, faintly again in the back. "To-and-fro," systolic and diastolic, pericardial friction rub over the sternum and to the right side; less loud extending toward the apex where it is practically lost. Radials—equal—irregular in force.

**Abdomen**—Negative except for liver edge 2 c.m. below the costal border, which is not tender. No Petechiae.

**Extremities**—Over right patella is a reddened infiltrated area, 3 c.m. in diameter with its center crusted and exuding a serous material. Knee joint free. Remainder of physical examination negative.

**Laboratory Findings**—Von Pirquet, Wassermann in Blood Serum negative. Blood culture—Staphylococcus aureus. Nose Culture—Staphylococcus aureus and albus. Throat Culture—Staphylococcus aureus and albus, Streptococci and a few pneumococci.

**X-Ray of Chest**—"Pericardial Effusion."

**Pericardial Puncture**— $\frac{1}{2}$  c. c. sero-fibrinous fluid withdrawn. Culture—staphylococcus aureus.

**Blood Count**—

Hb.	90%
Rbc.	5,072,000
Wbc.	27,400
Diff. Polys.	79%
Lympho.	12%
Large Monos.	13%

**Urine**—Sp. gr. 30. Acid reaction. F. P. T. albumen. Rare Poly, large amount of mucus. No rbc.

**Stool**—Negative.

**Course**—December 2. More cyanosis, pulse weak and irregular, friction not so distinct. Perspiration profuse. Hiccough frequent. Circumoral pallor. Development of pleuro-pericardial friction rub, especially near apex.

December 3.—Decompensation beginning; cyanosis extreme; subsultus tendinum; low muttering delirium. The liver is enlarging. Pericardial signs less marked; endocardial more so. Temperature remains very high.

December 3, p. m.—Swelling and tenderness, right wrist, embolic in origin.

December 4, 12:30 a. m.—Rapid decompensation, congestion and oedema of lungs, temporary reaction to stimulants.

December 4, 9:45 a. m.—DEATH.

**Autopsy**—A-15-133.—Body of a male child 150 c.m. in length. Slight rigor mortis; no livores mortis. Superficial veins on chest and abdomen more prominent than usual. Ulcer 1.5 c.m. in diameter extending into subcutaneous tissue over the right patella.



**Abdominal Cavity**—Negative.

**Thorax**—Both pleural cavities contain a few easily broken fibrous adhesions; no excess of fluid on either side. The pericardium is larger than normal; when incised 80 c. c. of a turbid serous fluid escapes. Both the visceral and parietal layers of the pericardium are covered by a layer of fibrinous exudate varying from 1 to 2 m.m. in thickness. This membrane is greyish yellow in color, tough and the surface is very irregular. Numerous rather thick strands of fibrin connect the two layers of the pericardium. The membrane may be removed en masse quite easily leaving a smooth surface of myocardium, blackish-red in color.

**Heart**—Weighs 240 gms. and is covered over the entire surface with membrane. The myocardium on section is dark red in color but shows no macroscopic evidence of general myocarditis. The valves are normal. One c.m. beneath the right cusp of the tricuspid valve is a small slightly elevated yellowish area extending from the endocardium. Around this the endocardium is inflamed. On sectioning the myocardium this area is seen to be the apex of a funnel-shaped abscess in the myocardium extending in the direction of the aortic semilunar. The aorta presents a number of yellowish atheromatous patches in the ascending and transverse portions of the arch.

**Lungs**—Old pleuritis, but no recent inflammation, macroscopically. Numerous subpleural petechiae. Lower lobe, right—contains multiple small abscesses containing reddish, semi-liquid, purulent material. The left lung shows approximately the same findings with failure to collapse, dark red color, non-friable.

**Kidneys**—Many small (1 m.m.) abscesses scattered through the parenchyma.

**Spleen**—Slightly enlarged. Greatly enlarged malpighian bodies. Surrounding pulp dark red and moist. Entire organ is soft in consistency. Remainder of macroscopic findings negative.

**Microscopic Findings**—Give diagnosis of:

Pyemic abscesses in heart and kidneys. Acute fibrinous pericarditis, acute fibrinous pleuritis and Focal necroses in spleen. Acute broncho-pneumonia. Acute bronchitis. Parenchymatous degeneration of heart, liver and kidneys.

**Bacteriological Report**—Culture from patient's blood on day of admission—Hemolytic staphylococcus aureus.

Organism recovered in 12 hours from heart's blood of rabbit injected with 20 c.c. broth culture of 12 hours' growth.

Cultures from heart's blood and pericardial cavity made at autopsy yielded the same organism.

Hemolysins were produced after 16 days (both for rabbit and human blood) but none after 7 days only.

**Discussion**—See Case No. 3.

**Diagnosis**—Staphylococcus aureus septicemia and pyemia, involving endocardium, myocardium and pericardium, with the probable portal of entry the local superficial abscess on the right knee.

## Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Constitutional prohibition, which goes into effect on January 17, materially affects the manner in which the physician may prescribe and the druggist furnish liquor or alcohol. The law states "No person shall sell \* \* \* \* or prescribe liquor without having first obtained a permit from the Commissioner of Internal Revenue. Every physician who issues a prescription for liquor shall keep a record, alphabetically arranged in a book prescribed by the commissioner, which shall show the date of issue, amount prescribed, to whom issued, the purpose or ailment for which it is to be used and directions for use, stating the amount and frequency of the dose.

No one but a physician holding a permit to prescribe liquor shall issue any prescription for liquor. And no physician shall prescribe liquor unless after careful physical examination of the person for whose use such prescription is sought, or if such examination is found impracticable, then upon the best information obtainable, he in good faith believes that the use of such liquor as a medicine by such person is necessary and will afford relief to him from some known ailment. Not more than a pint of spirituous liquor to be taken internally shall be prescribed for use by the same person within any period of ten days and no prescription shall be filled more than once. Any pharmacist filling a prescription shall at the time indorse upon it over his own signature the word "cancelled," together with the date when the liquor was delivered, and then make the same a part of the record that he is required to keep as herein provided.

Every physician who issues a prescription for liquor shall keep a record, alphabetically arranged in a book prescribed by the commissioner, which shall show the date of issue, amount prescribed, to whom issued, the purpose or ailment for which it is to be used and directions for use, stating the amount and frequency of the dose.

"The commissioner shall cause to be printed blanks for the prescriptions herein required, and

he shall furnish the same, free of cost, to physicians holding permits to prescribe. The prescription blanks shall be printed in book form and shall be numbered consecutively from one to one hundred, and each book shall be given a number, and the stubs in each book shall carry the same numbers as and be copies of the prescriptions. The books containing such stubs shall be returned to the commissioner when the prescription blanks have been used, or sooner, if directed by the commissioner. All unused, mutilated, or defaced blanks shall be returned with the stubs for liquor. Except on blanks so provided except in cases of emergency, in which event a record and report shall be made and kept as in other cases, no liquor shall be dispensed."

At the time of writing this, January 10th, the permits and forms have not been received at the local office, but it is probable that all physicians will be notified that they have been received and can be procured before this number of the Journal appears.

At present, January 10th, no permit is required to prescribe alcohol or liquor, but a physician desiring alcohol for office or laboratory use must make an application for a permit to the commissioner of internal revenue. This application must be in triplicate on a form furnished by the Division of Internal Revenue, and, in addition, must be accompanied by a bond or affidavit. A bond, if the physician will require more than 2 quarts in a year; an affidavit stating the purpose to which the alcohol is to be applied if the physician require 2 quarts or less in a year. Having obtained this permit, the physician may purchase alcohol from a dealer by filling the necessary form, again in triplicate, and sending this to the dealer who may then, on its approval and after some further formality, furnish the alcohol.

It behooves every physician to read carefully and to guard any literature sent him by the Internal Revenue authorities and in case of doubt, the physician should apply for information to his druggist.

The Treasury Department has issued a number of new regulations regarding narcotic prescriptions. The prescription must be typewritten or written in indelible pencil or ink. A prescription written with an ordinary pencil cannot be filled by the druggist.

A prescription must bear the date, the name and address of the patient, registry number and address of the prescribing physician. It can be written by a physician's secretary or agent but must be signed by him in the same manner as a bank cheque and he is responsible for the act of his secretary or agent.

The physician may prescribe narcotics for bona fide patients suffering from acute sickness, from chronic illness, addicts who are aged and infirm so that deprivation of the drug might mean death or uncalled for suffering; addicts who are taking a cure under the physician's direction provided that constantly diminishing doses of the narcotic constitute a part of the cure. A physician may fill his own prescription or administer drugs to a patient but he must keep a copy of the prescription and a record for at least two years excepting in cases where he administers the drug to a patient upon whom he is attending personally and at some place other than the physician's office. The physician may furnish a nurse with narcotics to be used upon a patient but the nurse is regarded as his agent and he is personally responsible for the proper use of the drug and should recover any the nurse may have when she leaves the case. A specialist who continually uses stock solutions, such as cocaine, etc., need not keep any record of the patient on whom he uses the solution provided he records the date he



opens the bottle and the date he finishes it, otherwise he must keep a record upon each patient it is used. A physician may not fill another physician's prescription unless he register as a druggist.

If a prescription calls for exempt preparations such as Paregoric, Elixir Heroin and Terpinhydrate, the person to whom the medicine is delivered need not sign on the back of the prescription but must sign the form customary in all cases where such preparations are sold over the counter.

The druggist may not deliver a narcotic excepting on a prescription of a registered physician. He must obtain on the back of the prescription the name and address of the person to whom the medicine is delivered. He may not furnish the medicine and obtain the signature subsequently. If the physician telephone the prescription to save time, the druggist cannot deliver the medicine until he has the prescription so that it may be signed. The prescription may be left at the house of the patient and signed prescription given to the messenger who delivers the medicine.

The physician may not prescribe or administer narcotics to an addict for the simple purpose of relieving his suffering or allaying his craving no matter how much the addict may be suffering from lack of the drug. A former decision permitted a physician to furnish the druggist with the formula of a mixture which he was in the habit of prescribing and he could then order this mixture under a special name such as Mixture Pectoralis without the formality attendant upon the narcotic prescription, provided the quantity of narcotic was within the exempted limit, that is, 2 gr. of opium or 1 gr. of codeine, and provided the druggist kept this preparation on hand and kept a record of the quantity of narcotic used in making it. This has now been rescinded and exemption only applies to U. S. P. and N. F. preparations and preparations which are marketed generally with a printed label.

A physician ordering a considerable quantity of any narcotic must state on the prescription whether it be for an incurable and aged infirm addict or an addict undergoing a cure.

## Bureau of Child Hygiene

### MINIMUM STANDARDS FOR THE PUBLIC PROTECTION OF THE HEALTH OF CHILDREN AND MOTHERS

#### Maternity

1. Maternity or prenatal centers, sufficient to provide for all cases not receiving prenatal supervision from private physicians. The work of such a center should include:

(a) Complete physical examination by physician as early in pregnancy as possible, including examination of heart, lungs, abdomen and urine, and the taking of blood pressure; internal examination and pelvic measurements before seventh month in primipara; examination of urine every four weeks during early months, at least every two weeks after sixth month, and more frequently if indicated; Wassermann test, when indicated.

(b) Instruction in hygiene of maternity and supervision throughout pregnancy, through at least monthly visits to a maternity center until end of sixth month, and every two weeks thereafter. Literature to be given mother to acquaint her with the principles of infant hygiene.

(c) Employment of sufficient number of public-health nurses to do home visiting and to give instructions to expectant mothers in hygiene of pregnancy and early infancy; to make visits and to care for patient in puerperium; and to see that every infant is referred to an infant-welfare center.

(d) Confinement at home by a physician or a properly trained and qualified attendant, or in a hospital.

(e) Nursing service at home at the time of confinement and during the lying-in period, or hospital care.

(f) Daily visits through fifth day, and at least two other visits during second week by physician or nurse from maternity center.

(g) At least ten days' rest in bed after a normal delivery, with sufficient household service to allow mother to recuperate.

(h) Examination by physician before discharging patient, not later than six weeks after delivery.

2. Clinics, such as dental clinics and venereal clinics, for needed treatment during pregnancy.

3. Maternity hospitals, or maternity wards in general hospitals, sufficient to provide care in all complicated cases and for all women wishing hospital care; free or part-payment obstetrical care to be provided in every necessitous case at home or in a hospital.

4. All midwives to be required by law to show adequate training, and to be licensed and supervised.

5. Training and registration of household attendants to care, under the supervision of physician or public-health nurse, for sicknesses in the home and for the home during sickness.

6. Education of general public as to problems presented by maternal and infant mortality and their solution.

#### Infants and Preschool Children

1. Complete birth registration by adequate legislation requiring reporting within three days after birth.

2. Prevention of infantile blindness by making and enforcing adequate laws for treatment of eyes of every infant at birth and supervision of all positive cases.

3. Sufficient number of children's health centers to give health instruction under medical supervision for all infants and children not under care of private physician, and to give instruction in care and feeding of children to mothers, at least once a month throughout first year, and at regular intervals throughout preschool age. This center to include a nutrition clinic.

4. Children's health center to provide or to co-operate with sufficient number of public-health nurses to make home visits to all infants and children of preschool age needing care—one public-health nurse for average population of 2,000.

Visits to the home are for the purpose of instructing the mother in:

(a) Value of breast feeding.

(b) Technique of nursing.

(c) Technique of bath, sleep, clothing, ventilation, and general care of the baby, with demonstrations.

(d) Preparation and technique of artificial feeding.

(e) Dietary essentials and selection of food for the infant and for older children.

(f) Prevention of disease in children.

5. Dental clinics; eye, ear, nose and throat clinics; venereal and other clinics for the treatment of defects and disease.

6. Children's hospitals, or beds in general hospitals, or provision for medical and nursing care at home, sufficient to care for all sick infants and young children.

7. State licensing and supervision of all child-caring institutions or homes in which infants or young children are cared for.

8. General educational work in prevention of communicable disease and in hygiene and feeding of infants and young children, including compulsory course in child hygiene in the public schools.

## State Board of Medical Examiners

### COLLECTED CLIPPINGS ON MEDICAL LAW ENFORCEMENT

Geo. Blaha died suddenly in Venice on Monday, December 8, 1919, following the application of a face lotion and the reported administration of an anesthetic of chloroform, reported to have been administered by Dr. Gertrude Steele, naturopath, one of the firm of Steele and Steele, beauty doctors.—*L. A. Times*, Dec. 13, 1919.

Dr. Geo. F. Purcell of Los Angeles found guilty by a jury on two counts in a Federal grand jury indictment, charged with misusing the mails to give information where an illegal operation might be performed. A sentence of one year and a day in U. S. prison at McNeil's Island was imposed by Judge Bledsoe.—*Los Angeles Examiner*, Dec. 11, 1919.

N. S. Sue, Chinese herb specialist, fined \$400.00 by Superior Judge Neddham, Modesto, following conviction of practicing without a license.—*Turlock Tribune*, Dec. 8, 1919.

Dr. Roy Kremer made a full statement to Captain of Detectives Matheson of the San Francisco Police Department on December 4, 1919, regarding his connection with the case of Rose White, who died of an alleged criminal operation in the office of Dr. Frank Thomas.—*San Francisco Examiner*, December 5, 1919.

The Angeles Clinics' School of Chiropody filed suit in the Superior Court of Los Angeles County December 2, 1919, to compel the Board of Medical Examiners to approve the school as qualifying applicants for examination for a certificate to practice chiropody.—*Los Angeles Express*, December 2, 1919.

Twelve hundred dollars in fines paid by convicted Chinese herb doctors of Stockton following conviction of practicing medicine without a license.—*Stockton Independent*, October 22, 1919.

A jury in the case of Ping Shew, Chinese herbalist of Oakland, found the defendant guilty, but refused to return a verdict of guilty. Attorney Frank Carr for the defense based his case on the testimony of D. A. Gallher, who had been treated by Ping Shew.—*San Francisco Examiner*, Dec. 5, 1919.

Dr. Jay G. McMath, osteopathic practitioner, arrested in Los Angeles December 2, 1919, charged with murder in connection with the death of Mrs. Marie Vegas Martinez, who was alleged to have been illegally operated upon by Dr. Harry G. Palmer, also under arrest.—*Los Angeles Examiner*, Dec. 3, 1919.

Dr. Francis Marshall, a chiropractor of Garden Grove, filed a petition in bankruptcy in the U. S. district court of Los Angeles.—*Anaheim Herald*, Nov. 26, 1919.

Dr. A. P. Woodward, 690 Oak St., San Francisco, was arrested December 6, 1919, on the charge of performing an illegal operation on Mrs. Elsie Goldman. Dr. Woodward was found guilty by the Board of Medical Examiners at the June, 1918, meeting, of violation of Subdivision 1, Section 14, of the Medical Act relating to abortion.

Judgment was suspended until the annual meeting of 1920.

The trial of Dr. James E. Thompson, Oakland physician, on a second charge of performing a criminal operation, was ordered continued by Superior Judge James G. Quinn on December 9, 1919.—*San Francisco Examiner*, Dec. 10, 1919.

The trial of Drs. M. A. Frank, G. P. Purcell and Augusta Stone of Los Angeles, charged with conspiracy to use the mails to advertise criminal abortions, opened before Federal Judge Bledsoe in Los Angeles on December 9, 1919.—*Oakland Enquirer*, Dec. 9, 1919.

Dr. Geo. W. O'Donnell, 1025 Market St., San Francisco, arrested December 6, 1919, charged with performing an illegal operation. Bail was set at \$2,000.00, which O'Donnell was unable to furnish.—*San Francisco Chronicle*, Dec. 7, 1919.

Dr. Herman Silverman, Los Angeles, arrested on a bench warrant December 18, to answer a Federal indictment returned July 5, 1918, wherein he and "Dr." Clyde H. Young were charged with using the mails to defraud in connection with their operations of the Los Angeles Wassermann Laboratory.—*Los Angeles Times*, Dec. 19, 1919.

Mrs. Sarah James Williams, conducting a private hospital in Los Angeles, arrested by Special Agent O'Connell of the Medical Board December 19, 1919, in connection with the death of Miss Lucile Halley, alleged to have resulted from an illegal operation.—*Los Angeles Times*, Dec. 20, 1919.

Coroner's jury at the inquest held in Venice, Calif., December 12, 1919, found that the death of Geo. Blaha was caused by chloroform administered by Mrs. Catherine Steele. Mrs. Gertrude Steele, a naturopath, was arrested charged with manslaughter and released on \$2,000.00 bail.—*Los Angeles Examiner*, Dec. 18, 1919.

Prof. A. Lavanzin, a native of the Island of Malta, arrested in Los Angeles December 2, charged with violation of the Medical Act.—*Los Angeles Times*, Dec. 3, 1919.

Prof. Lavanzin is reported to be the Dean of the Los Angeles Chiropractic College.—*Medical Board—Investigation Dept.*

Dr. I. L. Ward, Yreka, Cal., was indicted by the Siskiyou County grand jury for an alleged criminal operation on Mrs. Warren W. Brown.—*Sacramento Union*, Dec. 14, 1919.

Dr. I. L. Ward was charged before the Board of Medical Examiners with habitual intemperance (Subdivision 6, of Section 14 of the Medical Act) and after a formal hearing at the October meeting of the Board, the charge was dismissed.

An addition to the contingent fund of the Board of Medical Examiners was recently made by the receipt of 75 per cent. of the fine imposed on G. G. Sanchez, convicted of violation of the Medical Practice Act in Kern County.

Mrs. Ravello was awarded a verdict of \$7,500.00 by a jury in Judge Works' court, Los Angeles, in a suit for \$20,000.00 damages against C. P. Dunn, a licensed osteopath, who was alleged to have practiced medicine without a license.—*Los Angeles Express*, Nov. 7, 1919.



Returning a verdict of death caused by an illegal operation, a jury in the case of Lillian Sutter, Alameda woman, who recently died, recommended that Dr. F. G. Carpentier, 830 Market St., San Francisco, be charged with murder.—San Francisco Examiner, Nov. 25, 1919.

Drs. Harry G. Palmer and Jay G. McMath, osteopaths of Compton, Los Angeles County, were held to answer before Justice Forbes December 12, 1919, on charges of involuntary manslaughter and of performing an alleged illegal operation.—Los Angeles Examiner, Dec. 13, 1919.

Board of Medical Examiners served with a writ of Review for Dr. John Berry, frequently known as "Bloodless Berry," and with a record in Texas, whose license was revoked at the October meeting.

Dr. F. G. Carpentier, who has no license to practice and who has successfully escaped punishment many times, arrested in connection with the death of Lillian Sutter of Alameda.—San Francisco Examiner, November 25, 1919.

The charge of practicing without a license filed against B. T. Gum, Chinese Herb specialist of Modesto, was dismissed on assurance that he would permanently eliminate himself from further practice.

Chinese Herb doctors in Stockton plead guilty to the charge of practicing medicine without a license and pay fines aggregating \$1200.—Stockton Independent, October 22, 1919.

Dr. James Thompson, Oakland, former inmate in the Federal Penitentiary in Leavenworth, Kansas, was acquitted by a jury of a charge of performing a criminal operation on Mrs. Francis Markovich.—Oakland Tribune, November 22, 1919.

A hearing will be held before the Board of Medical Examiners at the February (1920) meeting where Thompson is cited to show cause why his license should not be revoked.

King L. Kwong, Chinese Herb specialist, arrested in Sacramento, charged with practicing medicine without a license. Surgical instruments for use in illegal operations and a valuable assortment of drugs were seized as evidence.—San Francisco Examiner, November 27, 1919.

M. M. Winchell, fake cancer specialist of Los Angeles, sentenced by Judge Frank Willis to San Quentin prison for from one to ten years for involuntary manslaughter.—Los Angeles Examiner, November 22, 1919.

Samuel R. Chamley, whose license was revoked by the Board of Medical Examiners December 15, 1915, with a checkered career in other states, and with a charge of violating the Medical Practice Act now pending, is circulating literature advising prospective patients to avoid the Travelers Aid Society and warning against conversation with strangers on arrival in San Francisco lest they be led to some other doctor.—San Francisco Chronicle, November 29, 1919.

Dr. Frank Thomas, 445 Franklin street, San Francisco, arrested in connection with the death of Rose M. White, an 18-year-old stenographer, on whom the aged physician is alleged to have performed an illegal operation.—San Francisco Chronicle, November 30, 1919.

A writ of mandate directed against the Board of Medical Examiners for their refusal to recognize the College of Osteopathic Physicians and Surgeons of Los Angeles as qualifying its graduates for examination for a physician and surgeon certificate, is set for hearing before Judge Jackson, Los Angeles, on December 5.—Los Angeles Express, November 28, 1919.

T. Wah Hing, a practicing Chinese Herb doctor in Sacramento for twenty-five years, convicted of practicing medicine without a license and sentenced by Superior Judge Glenn to pay a fine of \$500 and serve time in the county jail. Prior attempts to convict have been unsuccessful. He was arrested on a second charge of practicing medicine without a license.

With 55,094 signatures, of which Los Angeles furnished 47,744; San Francisco, 7889; San Jose, 1274; San Bernardino, 212, the Chiropractic Initiative measure has qualified for a place on the ballot at the next general election. The measure creates a Chiropractic Board and provides for the licensing of all Chiropractics now in practice.—Los Angeles Examiner, November 26, 1919.

Fresno Republican under date of November 6 and November 30 publishes a convincing argument against the Chiropractic Initiative measure and urging the maintenance of sane standards of education for those who seek a license to treat the sick or afflicted.

Shew Ping, Chinese Herbalist of Oakland, convicted of practicing medicine without a license, fined \$500 by Judge Mortimer Smith.

Dr. Harry G. Palmer, Compton, Cal., arrested November 19, 1919, in connection with the death of Marie Vegas Martinez, alleged to have resulted from an illegal operation.—Los Angeles Times, November 20, 1919.

## Deaths

Kreutzmann, Henry J. A graduate of University of Erlangen, Germany, 1880. Licensed in California 1886. A member of the Medical Society, State of California. Died January 14, 1920.

Van Ripper, C. S. Died in Pasadena, California, October 9, 1919. Was a graduate of College of Physicians and Surgeons, New York, 1859. Licensed in California 1899.

Sprehn, Henry John Charles. A graduate of the California Eclectic Medical College, Los Angeles. Died in Reno, Nevada, November 31, 1919.

Guglieri, August A. Died in Madrona, Calif., November 30, 1919. Was a graduate of the California Medical College 1901. Licensed 1901. Age 60.

Rodley, John Ellis, of Chico, Cal. Died December 2, 1919. Was a graduate of Missouri Medical College, St. Louis 1881. Licensed in California 1888.

McFaydan, John. A graduate of University of Pennsylvania 1876. Licensed in California 1876. Died in Marysville, Calif., November 24, 1919.

Helen Grant Winn Zindars (licensed under Winn). Died in San Francisco, December 25, 1919. Was a graduate of Cooper Medical College 1897.

Pickering, J. C. A graduate of California Medical College, 1893. Licensed in California, 1893. Died November 13, 1919, in San Francisco.

Rabe, B. A. Died in San Francisco, November 23, 1919. Was a graduate of Western Reserve University, Ohio, 1871. Licensed in California 1887.

Leffler, John. Died in San Francisco, November 26, 1919. Was a graduate from Pacific Medical College, 1874.

Luce, Douglas. Died in Veterans Home, Yountville, Calif., November 4, 1919. Age 89.

Towler, Wm. B. Died in Los Angeles, August 12, 1919. Was a graduate of University Victoria, Canada, 1869. Licensed in California 1892.

Ward, Florence Nightingale. Died in San Francisco, December 15, 1919. Was a graduate of Hahnemann Medical College, San Francisco, 1887. Licensed 1888.

# California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

Secretary	- - - - -	SAXTON POPE, M. D.
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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVIII

MARCH, 1920

No. 3

## IMPORTANT NOTICE

**Make your reservations at once with Hotel Ambassador, Santa Barbara, for the Medical Society State of California meets May 11th, 12th and 13th, 1920.**

### STATE SOCIETY

At the last meeting of the Council, held January 24th, among other matters of a routine nature, the forthcoming annual meeting of the Medical Society of the State of California was discussed at length. The change of location from Del Monte to Santa Barbara was confirmed by a unanimous vote. It was also debated whether or not the date assigned for the meeting suited the occasion. It seems now that eastern tourist travel has greatly increased and filled the southern hotels to overflowing. It was hoped that by changing the date from April to May we would avoid this situation, but unusual conditions of travel have rather increased the difficulty. This change of date was made at the instigation of the hotel managers, but it seems that no time is opportune now for large gatherings in tourist hotels. The change of the date of the meeting of the American Medical Association in New Orleans also conflicts to some extent with our State Medical Society meeting. The New Orleans convention was set for a month earlier than usual owing to the intense heat which occurs in June.

As yet no rates have been quoted by the hotels in Santa Barbara, and no doubt the changing conditions of industry and economics render it very difficult for hotel managers to assign rates very far in advance. There is one assurance

that we can depend upon—they will be high enough to satisfy the most extravagant.

At the request of the secretary, the Council appointed Dr. Joseph Catton as an assistant without salary, and to him was assigned the duty of supervising the preparation for the State Meeting. In accordance with a resolution adopted by the House of Delegates last year the State Secretary was appointed chairman of the Program Committee and the chairmen of the various sections are expected to report to this committee and work in co-operation with it. Dr. Catton will be especially assigned to this work, representing the Council. Every effort will be made to assure the Society of a successful and instructive convention. The scientific features of the program are of the highest type and many new problems in medicine will be presented for consideration.

Further details of rates and reservations will occur in the program which will be printed as usual in the CALIFORNIA STATE JOURNAL OF MEDICINE prior to the general meeting.

It is to be regretted that many papers on timely subjects and of more than excellent merit have had to be refused a place on the program because they were not presented before the time limit, which was December 31st, 1919. Because of the great number of papers presented to the Committee on Program each year, it was necessary to place a date after which no papers could be



accepted. There have been a great many more applications for room on the Medical and Surgical Programs than the time allotted will permit.

#### CHARITY SHOULD BEGIN AT HOME

In the San Francisco *Examiner* of February 18th, 1920, appears the following clipping:

"A marriage license was issued yesterday to Miss \_\_\_\_\_ and Mr. \_\_\_\_\_, Christian Science practitioner of this city. The wedding will not take place for some time because of illness in the family."

#### AN APPRECIATION

Years pass swiftly; fleeting events come and go. The problems of yesterday are forgot in the exigencies of to-day. With the passing of the problem, we are liable to forget the man behind it. Therefore, let us take time to say a word of appreciation of those who have broken trail for us in the progress of medicine, and packed the burdens whose benefits we now share.

The Medical Society of the State of California has been built up by the hard labor of successive champions in the cause of better medicine. These men and women have had idealism; they have been activated by steadfast purpose and have spent their life's energy in our behalf. Where others were indifferent and neutral, these leaders forged ahead and bid us follow. They led the fight against disease, ignorance and vice. They wrought the machinery for preventive medicine. They educated and coerced the public into better sanitation and personal hygiene. They built up the laws and ordinances which make for higher medical standards and eliminate quackery. We reap the benefit of their pioneer industry. We saw them at work; possibly, we differed with them over methods and means of achievement; mayhap, we scoffed at their efforts. Nevertheless, we have been blessed by the fruits of their labor. They were vital; they did not spare themselves. But now the spark has gone and the flame grown dim. We see them pass. In passing let us doff our hats and do them homage.

You who have served—you have given what cannot be lost. For the good you have done, we now offer you our gratitude.

You are among the Immortals.

#### AUTOMOBILE FOR NURSE.

The enterprise of Hayward, which claims to have the model public health center of the State, offers a valuable suggestion to the other communities.

Miss Olive Schafer, the public health nurse, has visited hundreds of families in Hayward and vicinity. She walked because she had no better means of transportation. She reached all classes making hundreds of personal examinations, touching children's dental defects, vision, etc., and leaving valuable lessons behind in home sanitation.

A great deal of the nurse's valuable time, however, was used in traveling from place to place. This was observed by enterprising citizens of Hayward and it was decided to buy an automobile for

the use of Miss Schafer. It has just arrived, and Hayward is so convinced of the value of public health nursing that a drive to raise funds to provide an additional nurse has been started.

This action and attitude are in such happy contrast to the culpable parsimony of Boards of Supervisors and City Trustees, in some of our communities when discussing and deciding public health questions, that it is recommended to them for emulation.

#### UNINTENTIONAL MISDEMEANOR OF HOSPITAL SUPERINTENDENTS AND PHYSICIANS.

Some hospital superintendents and a few physicians fall into unintentional misdemeanors in their zeal to serve their patients. Section 224 of the Civil Code, Chapter 569, provides that the placing of dependent children in homes for adoption is under the supervision and control of the state Board of Charities and Corrections. Overlooking this plain provision of the law, some place newly born infants directly into foster homes without informing or securing a license from the state Board of Charities and Corrections.

This violation of the law, despite the good intentions of the violator, may seriously jeopardize the interest of the defenseless child and in practice frequently does.

The physician or hospital superintendent feels that he knows the receptive foster parents very well, and yields to their request to find them a baby for adoption. The child appears and is disposed of, and the Doctor has a feeling of elation that he has found a good home for a possible waif.

But the Doctor is too busy to see the adoption through to a conclusion, and has not the facilities to find out whether all the necessary legal steps are carried out.

It has frequently happened that through this neglect of legal procedure the child has never been legally adopted, and its rights and that of its foster parents are not safeguarded.

The State Board of Charities and Corrections has licensed a number of Agencies to place children into homes. These organizations have the machinery necessary for the proper investigation and supervision of children placed in homes. Two of the organizations doing state-wide work along these lines are the Native Sons and Daughters Central Committee on Homeless Children, headquarters 995 Phelan Building, San Francisco, and the Children's Home Society of California, headquarters 2414 Griffith Avenue, Los Angeles; branch office, 64 Bacon Bldg., Oakland. These and other agencies authorized by the Board will safeguard the interests of the child, the natural and foster parents, and their work is free from undesirable publicity.

The JOURNAL feels confident that all that is necessary to secure uniform compliance with the law is to call this important matter to the thoughtful attention of the Doctors. As the measure is definitely designed to protect and conserve the childhood of the State, the efforts of the State Board of Charities and Corrections always receive our hearty co-operation.

**"DID WILEY EVER PRACTICE MEDICINE?"**

To the JOURNAL office has come a circular which we here reproduce, together with the note which accompanied it from the member who sent it. This circular is some "hooray" for the W. C. T. U. of California, we take it.

**WHISKY BANNED AS MEDICINE**

Dr. Wiley Declares It Will Only Hasten Patient's Illness In "Flu" Cases

St. Louis, Jan. 30.—(By Universal Service).—Whisky and brandy have been eliminated as medicines, it was declared here today by Dr. Harvey W. Wiley, president of the United States Pharmacopeial convention, and former chief of the Bureau of Chemistry, Department of Agriculture. No mention of alcoholic liquors as medicines will be made in the next issue of the American Pharmacopeia, which is prepared every ten years, he said. This was determined upon several years before national prohibition became effective.

Whisky, instead of an effective remedy or preventive for influenza, is a positive poison in such cases, said Dr. Wiley, adding:

"In only one instance would I use whisky for an influenza case, and that would be where I wished to hasten the departure to Heaven of the patient."—S. F. Examiner.

*Issued by the*

W. C. T. U. OF CALIFORNIA

3 City Hall Avenue

San Francisco

"Did Wiley ever practice medicine? Think of the president of the U. S. Pharmacy Convention getting into class with the Chinese 'doc' who says flu patients are killed only by chicken broth and eggs."

**NURSES NEEDED.**

"What are we going to do to get more nurses?" This question has been asked of the JOURNAL in written and various verbal forms so often, that we decided to place the question before all our readers instead of continuing to answer it privately and piecemeal.

That there is a shortage of trained nurses, and nurses in training, is generally felt. The medical profession is the first to feel this need and appreciate its seriousness, but it is a matter of concern to every hospital and to every citizen and family of every community.

Who will say that he or she or members of their family may not need a trained nurse today or tomorrow?

In untrained hands even the most skilful physician will not willingly and cannot safely leave his patients. We will not, therefore, attempt to forecast the menace to public health, and the heavy handicap it will impose upon the Doctor, when this present need of nurses grows greater, the number of nurses fewer, and the situation becomes more acute.

What's the cause? As the first step to finding out some of the reasons we have asked this question of many who are wrestling with the problem. From the answers given we condensed the following: 1. Too high requirements for entrances and for graduation. 2. The great expense necessary for such training. 3. Training course too long.

All essential information and practical work could be fully mastered in two years. 4. 'Too much menial work that does not materially assist nurses' development in skill. 5. High cost of living, and the commercial field offers more attractive opportunities in the way of larger salaries, shorter hours and more pleasant environment. These are among the chief causes assigned.

At this time we shall not undertake to place the responsibility or suggest definite remedies except to say that a plan that does not seem to work well in practice might well be revised. It is unnecessary to speak of the great field of service that the trained nurse enters. The high conception of nursing as a profession is too well known to require comment. The real nurse treasures and the public appreciates the immeasurable difference between commercial work, in which the employer gets what he pays for, and the professional service, which can never be measured by money.

One of the gains of the war was the revival of the spirit of service and self-sacrifice. With regard to the nursing profession this was eulogized in dramatic prose and epic poem. The nurse was pictured as the greatest mother of the world—greater even than those who gave up their sons for humanity.

The war nurses are not letting their well-won laurels wither, but the high tide of service seems to be ebbing and worthy successors "with this regard their currents turn awry and lose the name of action."

The cause may lie in a combination of the reasons above assigned, and the remedy in changing conditions that may be changed without impairing the efficiency of the service. It must be conceded that when we have not enough nurses for normal needs, we are poorly prepared for emergencies.

This need which prevails in the larger cities is doubly emphasized in rural communities. Were it not for public health nursing, and the splendid and combined efforts of such organizations as the Red Cross, the Salvation Army, the various Welfare Boards of Churches and lodges the situation would be extremely alarming.

It has been suggested that there are many types of work in the private rooms and wards of a hospital that could be done as well or better by hospital maids, and the nurses' time and strength saved for more skilful work. There is much work that does not require long practice or training in order to do it satisfactorily. Hospital maids would be more readily available than nurses, and, supervised by nurses, the service to the sick would not be reduced but the cost would.

**HANFORD STOPS SPITTERS.**

Hanford's way of stopping spitting is to make it expensive. It will cost you \$300.00 per spit, if you're caught spitting on the sidewalk in Hanford. Handkerchiefs cost only two bits, so it is cheaper to use handkerchiefs than spit on the sidewalk in Hanford. Professional baseball has outlawed "spitters" after this season. But that isn't Hanford's way. When Hanford decided that spitting was a menace to its public welfare, it prohibited spitting, and the law is being rigidly enforced. Hats off to Hanford.



The effective action taken by the Board of Trustees of the City of Hanford to suppress spitters, should commend itself to the other cities of the State, particularly to San Francisco, Los Angeles, Sacramento, Oakland, and San Jose. The city fathers of Hanford have announced through press and poster that those who go hawking along the streets, voiding their rheum and spreading bacteria to the right and left, are not only ill-mannered but ill-producers.

Most cities, like Hanford, have ordinances declaring it to be a misdemeanor for any person to spit or expectorate on the floor of any public building or on any sidewalk within the city limits. Yet every hour of the day and far into the evening, you see a parade of spitters phlegm-flaming the public.

The danger of infection from the dust of sidewalks, streets and buildings is immeasurably increased by spitters; the hazards of shopping, theater and church-going are multiplied by sneezers and coughers that must have buried their manners as well as talents in an only handkerchief. It is time for them to purchase another one and use it.

The action of Hanford in keeping its sidewalks and public buildings clean from the saliva of the thoughtless and inconsiderate, besides being a splendid disease preventive measure, makes the city more attractive as well as sanitary. Public sentiment in Hanford is strongly behind the Board of Trustees, and the public sentiment of every community of California will uphold its officers in enforcing laws for the suppression of customs and the prevention of conditions that endanger public health. Competent health officers can appeal with confidence to the common sense of any community to support health measures for the common good.

#### BOTULISM.

Particular attention is directed to the special article in last month's JOURNAL on botulism by Dr. E. C. Dickson. This subject is of very timely importance because of the wide newspaper notoriety it is now receiving due to the number of outbreaks of the last few months in widely separated parts of the United States. Botulism has been recorded more frequently in California probably because more constant search has been made for it, although possibly because its incidence may be higher on the Pacific Coast.

Not only is botulism a form of meat poisoning, but it has arisen from the use of home canned products, both vegetables and fruits, in various parts of the country. Human cases from home-canned foods have recently been reported in New Jersey, Indiana and Idaho. Forage poisoning cases in animals have been reported in Kentucky and Illinois, all together indicating the wide distribution of bacilli botulinus.

Recent outbreaks from home and factory packed olives have attracted much attention, largely because of the wide publicity accorded them in the newspapers. Equally important and more numerous outbreaks have occurred on the Pacific Coast with only local interest aroused because they did not attract newspaper attention.

An interesting feature of this disease is the high incidence of limber-neck in chickens. Many instances are recorded where from a dozen to fifty were killed. Recently, at Saratoga, California, several hundred thoroughbred chickens were killed by eating discarded home-canned food. In this case representing a loss of several thousand dollars. The high incidence of forage poisoning in horses and mules is also attracting attention. Cases of forage poisoning have been reported in California and are now being investigated by the Department of Agriculture of the University of California. Investigation of botulism began on a large scale in 1913 as a result of a serious outbreak in a sorority house banquet at Stanford University. Since that time this investigation has been carried on in the laboratories of the Stanford University Medical School, and for the period of the war aid was given this research by the State Council of Defense. Important facts have been demonstrated as a result of these studies.

Bacillus botulinus may grow and produce virulent toxin in vegetables and fruits, whereas it was formerly considered to be a meat poisoning exclusively.

Bacillus botulinus is a not infrequent cause of spoilage in home-canned fruits, and frequent deaths have been caused by eating or tasting infected material which had not been heated after removing from can or jar. The toxin of bacillus botulinus is destroyed by heat, wherefore any food is safe if boiled before eaten. The spores of bacillus botulinus are much more resistant to heat than was formerly believed, and they will stand many of the disinfecting processes by which canned foods are supposed to be sterilized. It has been shown also that there are at least two strains of bacillus botulinus as tested by toxin-antitoxin experiments. The toxin of strain A is unaffected by the antitoxin of strain B, and vice versa. This is a matter of the highest importance in treatment where a polyvalent serum must be used. Mrs. Burke, working in the Stanford Laboratories, has shown that the organism may be recovered from nature, from bird-picked cherries, leaves of beans, etc.

Owing to the recognition of the importance of botulism as a type of food poisoning associated with canned foods, a sum of money has been raised by the olive growers and the canning industry for the intensive study of botulism in California. This investigation will be conducted in the laboratories of the Stanford University Medical School and the George W. Hooper Foundation of Medical Research of the University of California. It has the co-operation of the United States Public Health Service and the California State Board of Health.

This investigation will include a careful study of the distribution of the bacillus botulinus in food and the ways in which food material may become infected, and of the steps necessary to destroy the organism when it has infected raw material. It will also include studies of the pharmacology and therapeutics of botulism. A staff of specially trained workers have been engaged and it is expected that the work will require at least two years.

## Special Article

### Hospital Service Department

#### THE ORGANIZATION AND MANAGEMENT OF HOSPITALS.

By W. E. MUSGRAVE, M. D., San Francisco.

There are four fundamental types of hospital organization and management:

- (a) Municipal, City or County hospitals;
- (b) Federal Government hospitals,
- (c) Private hospitals,
- (d) Corporations.

There are, of course, several varieties of each of these types; varieties in the efficiency, methods of selection and duties of the governing bodies, as well as variations in the powers and duties of the chief executive officer.

*Municipal* hospitals are extensive and expensive parts of State and municipal governments in all parts of the United States. Considered from an efficiency or community service standpoint, the vast majority of them are about on a par with other municipally operated public utilities. Too few of them may be pronounced excellent and too many are not a credit to the communities they are supposed to serve.

It is interesting to note the extensive discussion of the advisability of municipal control and operation of water works, street cars, railroads, telegraph lines and other comparatively simple public utilities—simple at least when compared with the vastly more difficult and complicated public utility of *health*, which so many communities undertake to operate with fewer facilities and less preparation than they have for operating other utilities, because they have not the aroused interest in public health that they have in less important utilities.

Few citizens in our busy and prosperous cities stop to realize that there is now invested nearly two billions of dollars in institutions of this kind in our country and that it takes a sum of money equal to an annual tax of more than two dollars for each man, woman and child to support them.

#### BED COSTS \$4,000.

Even in California, with its more than four hundred hospitals, including her full share of municipal institutions, not enough of the citizens realize that the problem, even when considered solely from a business and financial standpoint, is one of the largest, and certainly the most important, because it is rapidly developing and must continue to grow. Too few people realize that each new bed is added to those now available at an average first cost of \$4,000.00, which absorbs the earnings on \$80,000.00. In addition to this, the normal income on some \$25,000.00, or the tax income from over \$60,000, must be appropriated annually for the maintenance of each such bed during the life of the institution. If more people gave this subject the careful, serious consideration that is given when other public utilities are under discussion, the present methods of building, managing and supporting many municipal hospitals, as well as the character of service they are rendering, would be revised.

#### SPIRIT OF SERVICE.

Even in California too many of our county or

local government hospitals are required, in addition to their regular function of ministering to the sick, to care for the indigent, the aged and infirm and the criminal insane. Some of them are without many fundamental requisites for good medicine or even of good housekeeping. Above all and most important of all, that sympathetic Spirit of Service which means so much to every sick person is not developed as it should be.

It may be that these things, and many more that might be mentioned, are not inherently bound up in municipal management of hospitals, but no other ready explanation appears.

With a Nation-wide Hospital Betterment movement now well under way and growing constantly, it is well for thinking officials and other citizens to take more interest in the hospitals of their communities, and particularly those supported by taxation. The fundamental question is, whether the complex and expensive public utility of hospital care of the sick is more successfully and economically managed by local government machinery than it would be by charter and supervised contract with corporations or associations organized along special lines and having special facilities for such a service and caring for municipal beneficiaries at so much per day's service.

#### FEDERAL GOVERNMENT INSTITUTIONS.

*Federal Government Institutions* differ fundamentally from county or municipal hospitals in that their management usually is vested in one person, a specialist in the field, and who is responsible to some department for the success of the plant. Some of these hospitals are among the best, and failure to hold up standards and maintain efficiency leads to a change in executive head.

However, in many of these hospitals the spirit of helpfulness and sympathy so necessary to the sick is hard to maintain, and in some of them the incentive to do better medicine and a constantly higher type of public service is not as prominent as it should be.

#### PRIVATE HOSPITALS.

*The Private Hospital* is somewhat like any other private business and usually is operated for profit. Because of this fact, such hospitals rarely achieve the spirit of community service which means so much to the sick and their friends. The even more dangerous tendency to commercialism must be constantly combated by the person or group making an honest effort to operate a good private hospital. There are some splendid private hospitals in some of our larger cities, and when properly equipped and conducted they may be both a credit and an asset to a community. However, this type of organization, in unsafe hands, lends itself admirably to exploiting the sick and capitalizing their illness and credulity; while irregular and questionable practices reach their greatest perfection in institutions of this kind.

In its work over the State, the Committee of the League for the Conservation of Public Health has surveyed private hospitals deserving of high commendation. Some of them are well equipped, well personneled, with good staffs and technical help; have good buildings and ample equipment. They are offering to the medical profession oppor-



tunities and facilities for doing better work and to their communities a great reduction in health hazards.

Private hospitals of this class feel and accept their part of a community responsibility in the care of those unable to care for themselves, and are entitled to point with just pride to the fact that a goodly share of their earnings are paid in dividends of service to the less fortunate.

Unfortunately there are too many so-called private hospitals that have no such vision, and they may not be credited with the highest intentions or service. In some instances their privacy is used as a kind of smoke barrage to disguise incompetency or what not, which could not continue to propagate if hauled out into the open. Some of these so-called hospitals are dirty, badly designed firetraps without adequate equipment, personnel or other facilities for doing good work. Some of those better constructed and equipped make their work so coldly commercial that the patient seems to be an exotic in their wards.

When private profit-making hospitals are owned by physicians, there is danger of criticism that the thought of dividends may at times be influential in prolonging the stay of patients, unnecessary charges or the glossing over of poor service. There is no foundation for such criticisms in the majority of instances, any more than there is when a pharmacy is owned by a physician, but in both instances there exists the *opportunity* to criticize, and this is sufficient to insure a regrettable amount of it. Furthermore, there is just enough of truth in the situation in some hospitals to make it easy for all to be included by destructive critics.

On the other hand, there are undoubtedly certain advantages to physicians in being interested in their hospitals. The connection insures loyalty, co-operation and tangible assistance in the work of the hospital, not always easy to secure and hold when the only excuse for loyalty and co-operation consists in the opportunity to do a large amount of free work, often without adequate facilities and with no hope of recompense.

This phase of hospitals is discussed quite frankly because of frequent requests from physicians for an opinion upon the subject.

#### GOOD HOSPITAL ORGANIZATIONS.

*Corporation* management, with Boards of Directors representing stockholders, university, church, society or some other interest, constitutes the basic plan of the majority of good hospital organizations. This is the usual organization of business. Membership on the board of directors ought to be broad enough to satisfy hospital requirements as well as the various community interests, and the executive functions should be centralized as nearly as may be in the hands of one of its members, limiting the activities of the board as a whole to outlines of policy and questions of moment.

The principal difficulty with this form of organization is in non-attendance at meetings and lack of interested effort on the part of individual directors. It is an amazing fact, all too frequently seen, that members of hospital boards of directors give indifferent attention to their responsibilities, which may be many times greater economically and

publicly than some small business of another type which will have their services, study and attention.

The advisability of physicians as members of hospital boards already is answered in the discussion of the private hospital organization. Public health officers and physicians not engaged in practice are especially valuable members of governing bodies and each community service hospital is benefited by numbering one or two upon its board of directors.

An exceedingly prevalent fault with hospital boards is, that they are too large. Seven members should be considered the maximum, unless the organization provides for an executive committee of three or five members with very extensive powers. Large boards with loose organization and numerous committees dealing with all sorts of hospital problems are no more suitable for a hospital than they would be for a bank or a department store. Such a body acting in an advisory capacity to a smaller administrative council has much to commend it in communities where the hospital function must be discharged to the satisfaction of a multiplicity of interests.

## Original Articles

### NEURO-OTOLOGY: ITS RELATION TO GENERAL MEDICINE.\*

By FRED C. LEWITT, M. D., San Francisco.

Any investigation which adds to our knowledge of the function or anatomy of any part of the body is of value. When the knowledge thus obtained aids us clinically and can be applied with benefit to our patients, it becomes of the greatest importance, not to a few, in some special work, but to all. Of such value is the work that has been done in the investigation of the relation of the internal ear to the central nervous system. To this study has been given the name "Neuro-otology." This study has not only added to our knowledge of the anatomy and physiology of the internal ear in its relation to the central nervous system, but has also given us the means of obtaining data, valuable from a diagnostic point of view, in the examination of our patients.

While neuro-otology is primarily a study of the vestibular portion of the inner ear, and its pathways through the brain, its value, by the practical application of the data gained from the examinations, is being appreciated more and more both in medical and surgical diagnosis.

We know that the inner ear consists of two divisions which have separate functions—the cochlea which is concerned with hearing, and the static labyrinth which is concerned with equilibrium. The auditory function of the ear has been known since the beginning of medicine. It has only been within the last half of the last century that we have come to appreciate the role the internal ear plays as the chief organ of equilibrium.

It was through the work of such men as Purkinje, Flourens and Ewald that the relationship between the static labyrinth and equilibrium was first known. Later this work was further advanced by the work of Meniere. To Barany

\* Read before the meeting of the Pacific Coast Otolaryngological Society, San Francisco, August 4, 5, 6, 1919.

of Vienna however, goes the honor of placing the knowledge gained from this work in a position of practical and useful value to the otologist. But to Isaac H. Jones and those working with him in Philadelphia, goes the honor of working out the separate pathways of the canals through the brain stem, and so standardizing the methods of examination and so simplifying the interpretation of the results thus obtained that the work is no longer, to use a borrowed expression, "terra incognita."

We are all familiar with the two reactions resulting from the stimulation of the normal vestibular apparatus—nystagmus and vertigo. Past pointing is a secondary reaction dependent upon vertigo.

If each time the ear of a normal person is stimulated, these reactions appear in a definite manner depending upon the method of stimulation used, it must be because there are certain pathways from the semi-circular canals to the brain through which the stimulation must pass and the appearance of the reaction cannot be merely a coincidence. No more can we say it is a coincidence if after stimulation, one or both of these reactions fail to appear. The failure of any reaction to appear calls for an explanation by the examiner.

When we see a case with a normal nystagmus but no vertigo and past pointing, or a normal vertigo and past pointing but no nystagmus, we must conclude that there are *separate* pathways for these different reactions. Likewise when we obtain a reaction from the stimulation of the horizontal canal but none from the stimulation of the vertical canals or vice-versa, we must also conclude that there are *separate* pathways for the horizontal and vertical canals.

These separate pathways as worked out by Jones are as follows:

Fibers from the *horizontal* canal enter the 8th nerve as part of the vestibular portion of the nerve and continuing their course in the nerve enter the brain stem at the junction of the medulla and pons and pass to Deiter's nucleus. Here the fibers divide into a Y. One arm of the Y passes through the nucleus triangularis toward the median line to enter the posterior longitudinal bundle. This is the pathway for the nystagmus reaction from the horizontal canal. The other arm of the Y passes to the cerebellum by way of the *inferior peduncle* and terminates in the three cerebellar nuclei—nucleus glabrous, nucleus emboliformis and nucleus fastigii. A few fibers also pass to the dentate nucleus.

From the cerebellar nuclei the fibers reach the cerebrum by two pathways—the chief one being from the nuclei through the superior peduncle to the crura, through the decussation of the crura to the cerebral cortex of the opposite side terminating in the cortical center for vestibular impulses which is situated in the posterior portion of the first and second temporal convolutions. From here a few association fibers connect the center with other parts of the cerebrum particularly the frontal lobe. The second or minor pathway is from the superior peduncle to the crura to the temporal lobe of the same side. This, the vestibulo-

cerebellar-cerebral tract, Jones calls the subjective circuit and it is the pathway for the vertigo and past pointing reactions.

(2) The fibers from the *vertical* canals entering the brain stem through the 8th nerve, pass mesad to the fibers of the horizontal canal, ascend through the medulla to the upper part of the pons where they also divide into a Y—one arm of the Y going directly to the posterior longitudinal bundle forming the vestibular-ocular tract for the vertical canals. The other arm of the Y passes through the *middle peduncle* to the cerebellar nuclei mentioned above. From here the fibers have the same pathway as those from the horizontal canal.

With this picture of the separate pathways clear in our mind, we can locate the site of the lesion if after stimulation any of the reactions which normally should be present fail to appear.

It is not within the scope of this paper to describe or explain these reactions. It is taken for granted that we are all familiar with them. However certain points may be mentioned briefly which will aid us in determining beforehand what the normal reaction should be.

In regard to nystagmus the slow or vestibular component of the nystagmus is always in the direction of the endo-lymph flow.

Vertigo—the second primary reaction due to stimulation of the normal labyrinth—is always in a direction opposite to the endo-lymph flow.

Past pointing is a secondary reaction due solely to vertigo, and is in a direction opposite to the vertigo. If there is no vertigo there will be no past pointing.

The most conspicuous symptom we have to deal with in this study of neuro-otology is *vertigo*. To the patient it is the *complaint* for which he seeks relief. Varying in intensity and duration, it at times becomes so distressing as to prevent the patient following out his normal pursuits and our treatment is valued only to the degree to which relief is afforded.

To the physician vertigo is a *symptom* which occurs very frequently and in numerous and various pathological conditions. Under such divers conditions does vertigo appear that little has been done in the way of investigation as to its exact cause and definite methods of diagnosis.

Vertigo is related to a disturbed equilibrium and in order to understand it and arrive at its cause we must first have a clear idea of the different factors which go to maintain equilibrium.

Equilibrium is maintained by a constant flow of impulses to the brain from the eyes, ears, and the muscles, tendons and joints, in other words from our deep muscle sense. Normally this flow of impulses is constant and so balanced or harmonized that we are not conscious of it. It is only when this balance is disturbed, resulting in a confusion and disturbance of equilibrium, that we experience vertigo. Of the sources of these afferent impulses maintaining equilibrium those from the vestibular portion of the inner ear are the most important. A lesion involving the vestibular apparatus anywhere in its course from



the end-organ through its pathways in the brain results in vertigo. As the maintenance of equilibrium is the main function of the vestibular apparatus so is vertigo the most important symptom of its involvement. The application of neuro-otology in diagnosing the cause or the location of the cause of vertigo will have a large field of usefulness for there is no branch of medicine to which the symptom of vertigo is foreign. It comes to the ophthalmologist, the syphilologist, the internist, the surgeon and the neurologist.

The ophthalmologist who appreciates the close relationship which exists between the labyrinth and the eye muscles and who appreciates the fact that by these tests any type or direction of nystagmus can be produced will realize the value of these tests in the diagnosis of whether or not a certain eye muscle palsy is a supranuclear lesion. If for example a patient is unable to look to the left and by rotation we can produce a vestibular pull of the eyes in this direction we realize that the pathway between the labyrinth and the eye muscle nuclei is functioning and the lesion must be supranuclear.

We know that the 8th nerve is the most vulnerable to syphilis of all the cranial nerves. Our diagnosis of involvement of this nerve has been made on the subjective examination of the cochlea portion of the nerve and the value of these functional examinations depended largely upon the intelligence and co-operation of the patient. In the great majority of cases the vestibular as well as the cochlea branch is involved and by these tests our findings are gained without the co-operation of the patient. The information is objective and definite and thus accurate. If we can give information of a beginning cerebro-spinal lues, possibly long before other symptoms develop, it may be that we have a method to aid in the prevention of the later manifestations of syphilis of the central nervous system.

To the internist, vertigo has been shrouded in mystery. It has been met with so frequently and in such a variety of conditions and our knowledge of its cause has been so vague that he has been satisfied to speak of it as gastric, hepatic, kidney or cardiac vertigo and if none of these indefinite terms satisfied the conditions it becomes idiopathic vertigo. In the light of our present knowledge of the anatomy and physiology of the vestibular apparatus, we can no longer be satisfied with the use of such general and often meaningless terms in our explanation of the cause of vertigo. Just as a defective vision must be due to some lesion of the ocular tract between the cornea and the occipital lobes, so vertigo must be due to some lesion of the vestibular tract between the semi-circular canals and the temporal lobe. Just as the primary cause of this defective vision may be due to conditions in some other organ so may vertigo be caused primarily by pathological conditions in other parts of the body having a stimulating, impairing or destroying effect upon the vestibular tract. Just as the eyes are examined in certain diseases because of the appearance of

a defective vision, so the vestibular tract should be examined when vertigo appears.

To the surgeon these tests will be an aid in that most difficult part of intracranial surgery—exact intracranial localization. Previously in many cases we have had to be satisfied with a palliative decompression. It is possible that by these tests certain lesions will be so localized that something more than a palliative decompression may be done.

On the other hand we know that lesions located in the medulla, pons or cerebellar peduncle, which are, on account of their location, inoperable, often give rise to symptoms suggesting an operable cerebellar lesion. If we can by these tests, so locate a lesion as to be able to state that it is operable or inoperable, we have given to the surgeon a method of examination which will be of great value to him.

Probably to the neurologist more than to any other, will these tests be of the greatest aid. Due to the close relationship between the inner ear and the central nervous system, he is, in his work, often called upon to differentiate between labyrinthine and intracranial lesions. These tests will give definite and absolute information as to whether a lesion is labyrinthine or not. But the value of these tests is not only limited to the differential diagnosis between labyrinthine and intracranial lesions, for often we are able to aid in or to corroborate a location previously made by the neurologist especially if the lesion is located in the cerebello-pontine angle, the cerebellar peduncles, certain parts of the pons or cerebellum.

In regard to the progress of a lesion involving these pathways the information gained by repeated examination is so definite that its value can not be over estimated and these tests are bound to take their place among the routine methods used by the neurologist.

Thus we see that in this examination of the vestibular apparatus our findings are of value in all realms of medicine. But let me impress upon you the fact that these tests are not to take the place of all other methods of diagnosis nor are all pathological conditions to be diagnosed by these tests. The tests are not intended to diagnose the primary cause of vertigo but only the location in the vestibular apparatus of the lesion causing the vertigo. These tests alone will not tell us whether the vertigo is due to a tumor, gumma or abscess of the cerebellum or whether the vertigo is due to a focal infection from the tonsils or teeth or a toxemia from the intestines or kidneys. They will tell us however whether it is a destruction, impairment, or stimulation of the semi-circular canals, or a lesion of the cerebellar peduncle, or the pons, or some other portion of the tract.

If this work is to be of value in diagnosis it must be done by those competent to do it and the methods of examination must be standardized. If one examiner rotates a patient ten times in twenty seconds and with the head bent forward 30 degrees or douches the ear with water 68 degrees, and another rotates the patient ten times in fifteen seconds or uses water at 66 or 70

degrees their results are not going to agree. Those men who have developed this study have worked out on a large number of cases a certain technic which they have learned from experience to be the best. If in our work we find that our results do not agree with them let us, before we decide that these men are wrong and their work valueless, check up carefully our own knowledge and technic.

In conclusion I wish to report a few of the typical cases which have been examined at the University of California Clinic. The histories are brief, only those points of neuro-otological interest are enumerated.

Case No. 1. A. L. K. Private Patient. First seen in April, 1919. Complaints of frequent attacks of dizziness since 1913. Attacks begin gradually and not always associated with change of position of head, although he has noticed that during attacks, dizziness is worse on movements of head, attacks of nausea and external objects appear to move back and forth on horizontal line. Staggering with attacks but to no particular side. Noticed a change in hearing about 1916, more marked in left ear. This is increasing. Tinnitus in both ears since 1913, more in left ear. At first intermittent, but last six months more or less continuous. This patient was a rather close observer, and while he gave me a very full and complete history of his condition, I have only mentioned the more salient points. He has noticed that during his vacations, which he spends out of doors tramping and roughing it, he is free of attacks and usually remains so for a couple of months after his return.

Neuro-otological examination—Hearing: diminished in both, much more in right and with 8th nerve involvement. Rotation to right, horizontal nystagmus to left 16 seconds duration. Past pointing: correct direction but shortened. Falling poor. To left: nystagmus to right 15 seconds duration. Past pointing: correct direction but shortened. Falling poor. Caloric: water 68 degrees. Right ear: Rotary nystagmus to left after 110 seconds. Past pointing: correct but shortened. Left ear: Rotary nystagmus to right after 130 seconds. Past pointing: correct but shortened.

Summary—1. Involvement of cochlea portion on both sides.

2. Impairment of vestibular apparatus, both sides.

Diagnosis—Toxic impairment vestibular apparatus, both sides.

3. X-Ray of teeth showed some 5 or 6 root abscesses.

Case No. 2. Robert M. O. P. D. No. 48248. Referred from nerve clinic. Complaint: Dizziness and pain over right parietal region. On February 10, 1918, operated upon in Omaha for acute mastoiditis. Pain in head still continued. February 25, 1918, pus reappeared in ear and mastoid wound. March 10th attack of dizziness and a great difficulty in walking. Mastoid region cretated. On account of continued dizziness, pain and discharge, wound again cretated on April 22, 1918. At present pain on top of head extending to forehead. Very nervous. Dizziness especially at night or in turning around suddenly.

Neuro-otological examination—Right ear at present dry. Hearing: right ear, complete deafness. Left ear: normal. Rotation to right horizontal nystagmus to left 14 seconds duration. Past pointing: correct direction but shortened. Falling poor. To left: horizontal nystagmus to right, 7 seconds duration. Past pointing: none for right arm (repeated examinations), correct but shortened for left arm. Falling fair. Caloric: water 68 degrees. Right ear: no reaction after 4 minutes

(repeated examination). Head back: no reaction. Left ear: Rotary nystagmus to right, after 90 seconds. Past pointing: none for right arm; left arm, correct but shortened. Head back: horizontal nystagmus to right good amplitude. Past pointing: none for right arm.

Summary—1. Destruction right labyrinth.

2. At no time was there any past pointing of right arm to left suggesting lesion of inward pointing center of right arm.

Case No. 3. Robert K. Hospital No. 22717. Seen March 21, 1919. Complaints of frequent attacks of dizziness beginning in March, 1918. Attacks becoming more frequent and especially noticeable with a change of position of the body. Staggers and falls to left. No trouble with hearing.

Neuro-otological examination—Hearing: normal, both ears. Spontaneous Phenomena: nystagmus, horizontal to right when looking to right. Marked rotary to left when looking to left. Vertical when looking up or down. Past pointing to left with both arms, more marked with left arm. Falling to left: no change with change of position of head. Rotation: to right horizontal nystagmus to left, 42 seconds duration. Past pointing: correct but shortened for right arm, preverted (to left) for left arm. Falling good. To left marked horizontal nystagmus to right, 35 seconds duration. Past pointing: correct direction but exaggerated for both arms. Falling good. Caloric: water 68 degrees. Right ear marked rotary nystagmus to left in 30 seconds. Past pointing: correct for right arm, none for left arm. Head back: horizontal nystagmus to left. Past pointing: correct for right arm, preverted (to left) for left arm. Left ear: marked horizontal (preverted nystagmus to right) in 35 seconds. Past pointing: correct but exaggerated for both arms. Head back: horizontal nystagmus to right. Past pointing correct but exaggerated for both arms.

Summary—1. Normal hearing.

2. Spontaneous nystagmus shows an irritative or active lesion more marked on left side. Vertical nystagmus pathognomonic of brain stem lesion.

3. Spontaneous past pointing of both arms to the left would suggest an irritative lesion in region of inward pointing center of right arm (it is not a destruction of the outward pointing center of right arm, as patient does past point to right with right arm on douching right ear) and a destruction of the inward pointing center for the left arm. This is further corroborated by the fact that the left arm never past points to the right.

4. Prolonged nystagmus on rotation suggests an irritative condition of the fiber of the horizontal canals more marked on left side.

Diagnosis—Multiple lesions of the cerebellum more marked on left side. Lesions are both destructive and irritative.

Comment—Neurological Diagnosis—Multiple Sclerosis.

The following cases No. 4 and No. 5 are particularly interesting as they give an idea of the possible value of these tests. Both cases were referred from the nerve clinic which thus far has been unable to make a diagnosis as there are at present no neurological localizing symptoms. Neuro-otological examination gave a distinct picture of an intracranial lesion which, by these tests is definitely located. If later our diagnosis is confirmed by the neurologist, then the value of these tests as an aid to the neurologist in the location of certain lesions is beyond question.



Case No. 4. Harry S. O. P. D. No. 51616. Age 49. Referred from nerve clinic, April 2, 1919. Complains of dizziness since October, 1918, following attack of Influenza. Attacks becoming more frequent and severe and come on with change of position of head. Staggers at times forward and to the right. Has never fallen. No deafness. Tinnitus intermittent and more in right ear.

Neuro-otological examination—Hearing: good in both ears. Rotation to right: horizontal nystagmus to left, 25 seconds duration. Past pointing: normal. Falling: normal. To left: horizontal nystagmus to right, 30 seconds duration. Past pointing: normal. Falling: normal. Caloric: water 68 degrees. Right ear: faint rotary nystagmus to the left after 80 seconds. Past pointing: correct direction but shortened for both arms. Falling: normal. Head back: 60 degrees horizontal nystagmus to left and past pointing correct for both arms. Left ear: no nystagmus after 4 or 5 minutes douching (2 examinations). Past pointing: correct direction for both arms. Vertigo: normal. Falling: normal. Head back: 60 degrees marked horizontal nystagmus to right, past pointing correct for both arms. Head up and nystagmus disappears.

Summary—1. All reactions go through except nystagmus reaction from left vertical.

2. Right vertical canals pathway slightly impaired shown by prolonged time to produce reaction and shortened past pointing.

Conclusion—Lesion in upper half of pons on left side between the division of the fibers of the left vertical canals and the posterior longitudinal bundle. The slight impairment of the right verticals may be explained by pressure of the lesion on the right pons.

Comment—No diagnosis has yet been made by the neurologist due to the absence of definite localizing neurological symptoms.

Case No. 5. Bosilos S. O. P. D. Referred from nerve clinic. Complains of dizziness since March, 1919. Comes on suddenly and is increasing in severity. Attacks come with change of position of head. Staggers to right. Has fallen to right. Says he has no trouble with hearing and no tinnitus.

Neuro-otological examination—Hearing: complete deafness in right ear (duration unknown). Left ear: normal. Romberg to right, which does not change with position of head. Rotation to right: horizontal nystagmus to left, 15 seconds duration. Past pointing: both arms correct direction. Falling: good. To left: horizontal nystagmus to right, 7 seconds duration. Past pointing: both arms correct. Falling: good. Caloric: water 68 degrees. Right ear: no nystagmus after 4 minutes (two examinations). No past pointing. Head back: no nystagmus or past pointing. Left ear: rotary nystagmus to right, poor amplitude so that difficult to note, after 110 seconds. Past pointing: none for either arm. Head back: marked horizontal nystagmus to right. Past pointing: correct, both arms. Douching left ear with head back 60 degrees and water 68 degrees: marked horizontal nystagmus to right in 27 seconds. Past pointing: correct, both arms. Head up and no nystagmus or past pointing.

- Summary—1. Complete destruction of vestibular and cochlea portion of right side.
2. Marked impairment (almost destruction) of fibers from left verticals.
  3. Pictures of right cerebello pontine angle lesion of recent origin (not large enough to completely destroy fibers of right verticals as yet).

Comment—No diagnosis as yet by the nerve clinic due to lack of definite localizing symptoms.

135 Stockton St.

## COMPARISON OF THE ACTION OF ROENTGEN RAYS AND RADIUM.\*

By ALBERT SOILAND, M. D., Los Angeles.

In a former paper, the writer described the source and distribution of both radium and X-Rays,<sup>1</sup> and at this time would like to call attention to a comparison of the actinic of radium and Roentgen rays.

In going over the literature devoted to the physics and therapeutics of radium, one is struck by a confusion of statements as to the penetration and distance traversed by the various radium rays. Also the terms, alpha, beta, and gamma rays, emanation, particles, and waves which are so frequently interchanged that it is difficult even for one familiar with radio physics to intelligently follow the discourse. These terms are often used indiscriminately to designate each and all of the different forms of energy derived from radium.

For the purpose of elucidating the following photographic experiments with radium and Roentgen rays, a few fundamental facts will be reiterated. Radium element in process of decay gives off emanation, an inert gas called niton, and alpha particles, the latter being atoms of positive polarity. The emanation is unstable and loses more alpha particles, after which it is known as radium A. Radium A gives off alpha particles, then resolves itself into radium B, changing in turn to radium C, D, E, and F. The radio active period with which we have mostly to deal is the transition of radium C, for this compound gives off in quantity, alpha, and also the beta and gamma rays, with which we are concerned therapeutically. The alpha rays or particles are not considered seriously in therapeutics. They are of exceedingly limited range of activity and are easily arrested by any filter. If allowed to strike the unprotected skin in quantity, they give rise to a very disagreeable but quite superficial dermatitis. The beta particles are of negative polarity, similar to the Roentgen cathode stream, and in their transmutation give rise to true beta ethereal waves, which the writer believes to be the real therapeutic factors in radium. The gamma radiation is a purely ethereal one of higher penetration and exceedingly short wave length, closely related to the Roentgen ray. The primary beta rays or negative electrons from radium are corpuscular streams, which upon meeting an obstruction are capable of transforming their energy into secondary beta rays, and it is these waves or disturbances that produce the well-known metabolic changes in living protoplasm. The gamma rays are not corpuscular, but at their point of arrest give off secondary rays similar to the beta, and as already stated are of shorter wave length, of relatively higher frequency, and greater penetration. The beta corpuscular stream or primary beta rays

\* Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.



4. X-Ray exposure on same lead plates, 5 milliamperes of current, 100 kilovolts, 8 inch skin distance, time 5 minutes. Note intensive action on lead plates, particularly the one and two millimeter thickness.



5. Radium 100 milligrams, 8 inch distance from covered negative. Exposure one hour. Note radio activity in lead plates to an equal degree, also secondary beta rays with negative polarity, which are plainly demonstrated from each south pole of the lead.



6. X-Ray exposure, 6 inch back up, 100 kilovolts, 50 milliamperes, 8 inch distance from covered negative. (a) Exposure one second. (b) Same set up and technic. exposure ten seconds. Note intensive actinic and chemical action on lead in direct proportion to thickness of same.

and to a lesser degree the gamma rays from radium have the power of imparting radio activity to practically all substances. This induced radio activity is best exemplified in the denser metals, those of highest atomic weight, showing this process in the most intense form. This induced radio activity is of very transient nature, the objects affected readily yielding up their energy in heat. In an energized X-Ray tube, the cathode corpuscular stream is all transformed within the tube itself; hence, we get no secondary beta X-Rays. We do get, however, from such an X-Ray tube an enormous amount of ethereal wave disturbances, which when arrested or reach their point of absorption give off precisely the identical wave form of energy that is exhibited by all the active principles of radium.

To make a comparative rating between a single massive Roentgen exposure and a single one with radium would involve many factors and render such a task exceedingly difficult. In a functioning X-Ray tube, we have a potential source of radio activity, greater perhaps than in all the world's available radium, at least greater than all the radium in the United States. To establish a standard technic under such conditions, one would

be compelled to reduce the X-Ray output in an individual unit to a degree that would correspond to a standard radium equivalent. The next step would be to use suitable filters to insure wave radiation of the same length and frequency for both agents. Then if the time element of exposure could be harmonized, it would make absolutely no difference which agent be employed. In such an exposure with either agent, the tissue changes would be exactly alike, both clinically and microscopically.

At present, a standardization as just outlined is impossible, and we will have to confine ourselves to discuss radium in the amounts usually available for practical work. Outside of a half dozen large Eastern institutions, this would range from 100 to 200 milligrams element.

In Roentgen therapeutics, the ordinary set up of a Coolidge tube, working on 100 K. V. pressure, with .5 M. A., at an 8-inch skin distance without filter, will produce an intensive erythema or surface reaction sufficient to destroy a superficial epithelioma in one five-minute application. As even this short exposure has been found to produce lasting X-Ray dermatitis in susceptible individuals, such an application is undesirable in skin work, so



this dose is normally used for its deep effect on underlying tissues employing opaque filters to screen out the rays that produce the surface irritation.

To obtain the same action as just outlined with say 100 milligrams radium, we would have to apply this element or emanation for several hours over the skin to get the therapeutic effect, and if we desire a deep effect, heavy filters would be necessary to cut out the preponderant radium beta or short range rays, and then an exposure of a great many hours would be necessary to permit the gamma rays to functionate in a manner equal to the five-minute X-Ray exposure already noted.

Bearing this in mind and recalling that radium's greatest source of energy lies in its preponderance of beta radiation or short-range rays, it is easy to understand why a radium dermatitis is more evanescent than a Roentgen dermatitis. A radium dermatitis is just like an intense solar erythema. It appears quickly, is quite superficial, hence heals readily. Exactly the same sequence would follow an exposure by a so-called soft X-Ray tube working under low K. V.

In this example, the X-Ray wave radiation produced would resemble the usual radium beta radiation. Photographically, the foregoing statements can be readily demonstrated. At a 48-inch distance from plate, 150 milligrams of radium, exposure five minutes, produces no chemical change in the emulsion. This demonstrates that no beta rays reach the plate, and that the gamma rays pass through the emulsion unchanged. Placing strips of lead on plate and repeating experiment, but increasing time to ten minutes, shows a slight fogging of the emulsion due to the induced radio activity in the lead strips. The same experiment carried to one-half hours exposure with a fresh plate shows the shadows more clearly.

Performing the same experiment with an X-Ray exposure at the same distance, the emulsion of the plate is blackened with the shortest exposure we can make, viz.  $1/60$  of a second. With radium (200 mg.) distance ten feet, no image was obtained by either primary or secondary rays in one hour's exposure.

In order to ascertain the distance at which a serviceable X-Ray plate could be made with an ordinary exposure, we rigged up a tube and plate to get the greatest space possible in our laboratory. This measured forty feet from anode to negative. An exposure of ten seconds, fifty milliamperes, on a six-inch back up, gave us a serviceable plate, that is where bone detail can readily be seen, attention being directed to the fact that the total X-Ray energy used was quite ordinary in amount. The photographic experiments were made under working conditions as nearly alike as possible. Thus the average amount of radium used at an ordinary treatment rarely exceeds 100 milligrams element, and for all the plates made at working distance, this amount is used. In the long range exposures, 150 and 200 milligrams element are employed. The X-Ray plates were made with the regular standard Coolidge tube settings.

Photographically, it is almost impossible to demonstrate the difference between the dermatitis produced by X-Rays and that from radium. This is due to the inability of the sensitive emulsion to register ordinary color changes.

Every competent Roentgenologist and radium therapist can show slides and give case records of a great many lesions cured; therefore, no time will be consumed in an elaboration of this kind now. It would be of considerable value, however, to know how many failures would ensue out of a certain number of like conditions treated by both Roentgen and radium therapy. The test then becomes one of personal ability, for with ample radium one can duplicate the effects of Roentgenization and vice versa.

The writer believes that the X-Rays offer decided advantages in the treatment of lesions covered by, or affecting, the epithelium. On mucous membranes or in cavities where soft tissues predominate, radium becomes the element of choice. This is particularly true in lesions involving the mouth and upper respiratory tract, the vagina, uterus, and rectum.

In conclusion, from an abundant practical and clinical experience with both Roentgen and radium radiation and with a fairly well balanced conception of the limitations of each of these potent agents, the best results in general are obtained by a judicious combination of both.

527 West Seventh Street.

<sup>1</sup>The American Journal of Roentgenology, Vol. V, No. 8, August, 1918—"The Electro-Physical and Chemical Properties of Roentgen Rays and Radium."

## REFRACTION AND MEDICINE.

By PERCY SUMNER, M. D., San Francisco.

So much has been published the last few years on focal infections that most physicians are fully alive to the dangers caused by these and usually institute a careful search for the offending member, when there is any obscurity as to the cause of the trouble of which the patient complains. Of course any movement of this sort is apt to be overdone and frequently one finds a patient minus teeth and tonsils and possibly other things that may still complain of indefinite and indeterminate discomforts.

It is for this class of patients that I am now taking the liberty of asking you as physicians if you have determined the condition of their eyes; have they errors of refraction that have either not been corrected at all or if treated then only superficially by an optician, or an oculist who does not appreciate the growing importance of thorough refraction in this age where the stress of life bears particularly hard on the nervous system? And I may here state that there is no greater drag on the nervous system or a spendthrift of nervous energy than the ciliary muscles in their attempt to give clear and sharp vision in the presence of even a small degree of refractive error.

Most of the people who have been subjected to the focal infection search often have an underlying unstable nervous balance, and when every-

thing has been done and they are assured they will be well, it often turns out that they are disappointed in their expectations and the loss of faith in their purposed cure tends to depress them more than ever and they become quite discontented and unhappy, and are apt to wander from one physician to another in a vain search for a cure.

About half of the patients sitting around the internal medicine man's office are the victims of eye strain, whether they are wearing glasses or not; and the first important thing to do for them is to send them somewhere where a thorough and careful examination can be made of their eyes to the end that the internist may feel confident that the eye strain is not one of the contributing causes of their complaints.

Just why physicians will send patients to opticians for eye examinations (as some do) or why people will be satisfied with the most cursory sort of a refractive examination at the hands of a very busy oculist is beyond my comprehension, unless it be due to ignorance in both cases. It is true that a number of people are deceived and imagine they are in competent hands when they land in the office of a man who is a "doctor," even though it be only doctor of optometry; and probably they feel that since he cannot help them there is no use in searching further and consequently must bear their discomforts with whatever philosophy they can muster.

The attitude of the physician to the oculist can also be easily explained. In the earlier days of ophthalmology the oculist gave his patients a most cursory examination for glasses and then proceeded to treat the patient indefinitely with the "drops" method. Probably that is the reason why the opticians have flourished and prospered, and why to-day you can find an optical store in every block and in almost every drug store and cheap jewelry house.

To be a refractionist in the best sense of the word calls for qualifications and training that are equal at least to any other medical specialty. In the first place he must be thoroughly grounded in the fundamentals of general medicine; he must have considerable knowledge of the mental make-up of human beings; and he must further have sufficient knowledge of the many things that contribute to eye discomfort—nose, throat, teeth, etc.; and, finally, he must be thoroughly competent and interested enough in refraction to conduct a most careful and thorough examination of every patient who consults him. And such an examination consumes considerable time. The method I pursue is as follows:

When the patient first presents himself I examine the eyes to determine if there is any refractive error; look at the disc and determine the tension; find the visual acuity and if the patient is wearing glasses determine the correction. At the same time I get an impression of the general make-up of the patient, and frequently on this ask questions of history that will give a clear understanding of the cause of the patient's complaints. Then I make an appointment and instil

homatropin in each eye at ten minutes' interval until seven drops have been used in each eye, so that I may make a careful retinoscopic and subjective test. (And here I may state that homatropin does not paralyze the muscle completely in every case; often the muscles will react to stimulus after the most careful preparation. And if there is any question at all of the results of such an examination, then atropin should be used for two days. But it is a difficult matter to persuade a patient to have atropin put in the eye, and one must often be content with homatropin, which, when properly used, gives satisfactory results in most cases.)

After four days, when the muscles have regained their tone, I again try the correction, measure the muscles, determine the amount of accommodation, and finally the prescription. I measure the pupillary distance, determine the best sort of mounting and set down all the particulars on paper so that when the optician sees it all he has to do is to go by my directions. When the glasses are made the patient brings them directly to me and I determine by measurement that the correction is as ordered; that the glasses set properly on the nose and that the pupillary distance is right. After a few days the patient returns to see if the adjustment is all right and incidentally to be encouraged in the proper use of the glasses. At the end of three or four weeks when I feel the patient has become accustomed to the glasses and the ciliary muscles are relaxed, I again go over the manifest correction and make further note on the behavior of the muscles, and if any improvement can be made at this time I have the lenses changed.

And in regard to mountings one must know the optical business to understand the importance of the proper mounting. This must not be left to chance. It is practically impossible to put spectacles on a woman, and often, too, on men; and though I was trained in the belief that these are the very best things to wear, yet the modern eyeglass mounting can be made to hold the lenses in good position and it is better in my opinion to wear eyeglasses constantly than to be carrying a pair of spectacles in the case. Every little detail of the glasses must be scrutinized; because my contention is that as glasses are a part of modern equipment as much thought should be given to both the practical and aesthetic sides of glasses as is given to one's dress. One may have quite stylish mountings without going to the extreme of wearing the heavy library frame, which is impractical, as the lens slip around in the frame.

I would have hesitated to describe this method in detail, because it seems so unnecessary to many who are accustomed to the old way, had it not been for a paper written by an eminent internist, which he read before the Eye Section at the American Medical Association at Atlantic City, where he made an appeal to oculists to give careful and thorough refraction to patients and at the same time to become interested in them from the neurological point of view. His statement that



there are a great many patients of a neuropathic disposition that can be helped greatly by the co-operation of the internist and the oculist I fully agree to; and his request that oculists should not treat the eyes as if they were optical instruments is perfectly reasonable and humane. But my impression was that the shoe pinched the other foot—that the physician ignores almost entirely the fact that “body and mind are closely bound together and exert a constant interaction on each other”; and usually they are satisfied to let it go at that when they find the machinery seems to be in order. They let the patient go with the statement that they are “only nervous” and that there is “no organic trouble.” What is the use of dismissing a patient, often very intelligent, with such a bromidic statement as this? What is the use of having perfect machinery if the supply of energy does not run smoothly or is insufficient to keep the machine going evenly? Or if the mind and emotions occasionally do an act of sabotage and drop something into the complicated cogwheel arrangement that keeps this machine working? Let me quote from L. Frank on this subject:

“A correct understanding of human biology leads inevitably to the conclusion that man can live a healthy and happy life only when he is not fighting like a Don Quixote against the forces working in him, the gregarious instinct and the longing to love and be loved. The university courses in medicine, theology, law and pedagogy, although the professions they teach have to deal always with man and his relations with his environment, yet pass over entirely the normal or pathologic life of sentiment and sex relations in general. Are not these psychic processes the axis on which our entire human life revolves, its happiness and its unhappiness? Are these forces actually imponderables for the physician?”

It is my impression that whether a physician is interested or not in something more than the mere machinery depends not on his specialty so much as on his individuality; and I am sure that there are a great many physicians who would welcome with pleasure anything that would guide and help them to understand the psychic side of medicine. But unfortunately a neurotic is like a poet, born, not made, and one has to be something of a neurotic to understand it in others. But there are three small books on the subject that may help to guide your sympathy and understanding: White, *The Mental Hygiene of Childhood*; White, *Principles of Mental Hygiene*; Wells, *Mental Adjustments*. And in reading about the neurotics and in dealing with them please remember these words of Goethe: “An intelligent man finds almost everything ridiculous, a wise man hardly anything.”

So many of my patients who have come to me on the recommendation of other patients have told me of their medical travels and that the advice to have their eyes carefully measured did not come from a medical man at all, but from a layman. A great many physicians seem to think that if a patient has sharp vision and makes no

direct complaint about the eyes that they must be all right; but sharp vision is often obtained at so tremendous an outlay of nervous energy that this class of patients cannot really afford to expend it.

Perhaps here it would be well to explain the oculist's standpoint. It is our ideal to fit the eyes so that the patient can see in the distance with as little play as possible on the ciliary muscles. The emmetropic eye looking off into distance is absolutely at rest, the rays of light from objects being focussed on to the retina by the refractive media of the eye, without the use of the ciliary muscle. So with the muscles paralyzed by a cycloplegic one can determine the amount the muscles have been accommodating to get good distance vision—the static refraction. This is the scientific side of the refraction, the art of it comes in to determine how much or how little can be allowed the muscles to work in the distance, for it is quite evident that a muscle that has been doing a great deal of work in the distance does not give out suddenly when glasses are put on, and there is often blurred vision in the distance till they do relax. What allowance to make for the muscles depends to a great extent on the physique of the patient, the class of work he does, etc. That is where there is a wide gulf separating opticians and ophthalmologists—the former fit them with glasses to make them see well; we fit them to make them well.

That refraction is neglected in clinics is due to the amount of time it consumes and the trying part of it, when one has much of it to do; and if it is done mechanically it becomes a frightful bore. And there is nothing spectacular about it to attract attention. It is for these reasons, possibly, that two of the large eye-clinics in San Francisco have opticians doing the refraction for them.

Of course a great deal of this indifference to refraction on the part of the medical profession is partly due to the economic side. If the average person were educated up to the point where he would pay as much for a complicated refraction as he will for a simple operation, then there would be some reason for doing refractions. But what is the use of spending two, three, or even four hours on a refraction, when any sort of an operation performed in much less time pays bounteously? And a man devoting himself to refraction can see only a few patients a day, and the work itself tends to specialize one's abilities in that direction alone.

Oliver Wendell Holmes said that to train a child one must begin with its grandparents and in regard to the wearing of glasses it is certainly true that one must begin with the parents. Time and again it has been necessary to caution parents about speaking against the wearing of glasses when they bring their children to me with the statement that the child cannot see well or suffers from headaches, and most of them in the same breath express the wish before the child that they do not want it to wear glasses, they

look so ugly, etc. The child readily absorbs this statement, as is usual with all bad counsel, and when it grows up passes it along to its children. So that right at the start there is a prejudice bred that has to be combated for all times.

To my mind the wearing of glasses under the present conditions of life has become an imperative necessity to the majority of people. From the hour of waking to the moment of retiring the ciliary muscles are in constant use—a use that never was intended by nature. The amount of work done by the civilized man of to-day with his eyes is stupendous. There are constant and increasing demands for the eyes particularly; in addition to work, the moving pictures, interesting books, automobile riding, with its constantly shifting views, pulling always on the eye muscles, give very little opportunity for relaxation of the eyes. Modern man is constantly doing something, and that something involves always extra work on the nervous and muscular systems through the work done by the ciliary muscles.

The war has familiarized one with the term of shell shock—a group term for a great many cases of neurasthenics and neurotics. But to the appreciative mind it was not necessary to have a war to show that society is filled with shell-shocked people. Life with its nervous stress did that for them long before the war was thought of. And if people are to be helped then their energy must be conserved before the break becomes apparent to the least observing person.

It has been a favorite saying when a man has strong and powerful vision that he has the eyes of a savage. But this, like a great many other sayings, is not true. Some physician of an inquiring turn of mind examined the eyes of a tribe of Indians and he reported that they had practically the errors of refraction that we find in the eyes of civilized persons who are using them constantly. The only difference being that the one rarely uses his accommodation, and the other practically never ceases to use it.

The question then why the eyes give out in some in early childhood, in others in adolescence, and yet in others not till about the fortieth year is due to the inherent vitality of the individual and the sort of use the eyes are subjected to. Many neurotics' first indication of exhaustion is manifested in the eyes by pain and discomfort; and when they rest and their general physical tone is raised then the discomfort passes away, to return again on the least sign of exhaustion. One of the constant signs of neuroses is a persistent subnormal accommodation, after the eyes have been used even moderately.

In anemias, neuroses, neurasthenia and many of the debilitating diseases the constant complaint about discomfort after reading and using the eyes is due to the fact that the organism has not sufficient energy stored up to supply the demands made on it and the eyes are often the first warn-

ing of this lack of vitality. Frequently after paralyzing the muscles with homatropin the patient notes the next day how much better he is in regard to his eyes and general condition; and frequently people who are confined to deskwork when they go off on a long vacation find they can discard their glasses and work without any discomfort for a varying period until the exhaustion again creeps over the nervous and muscular systems and they have to go back to their glasses.

Often the parents note the beginning of their children's eye troubles, following an attack of measles, attributing the cause from some poison of the disease; but, as a matter of fact, the trouble is usually a refractive error and the debilitating effect of the disease lowers the general vitality and consequently the child cannot afford to expend what it formerly did on getting vision.

It is surprising how often people who complain of stomach and bowel troubles—"dyspepsia," they call it—can be helped by the wearing of properly fitted glasses. And the explanation is the same—the much needed nervous force for the proper functioning of the digestive apparatus is directed into its proper channel and not wasted trying to get good vision. I remember the case of a young woman who came to me about her eyes. Her history was that she had had headaches for some time; but for the past few weeks had been nauseated, had no appetite, and was losing weight in consequence. The examination of her eyes showed only a small amount of hyperopia with slight astigmatism, which, however, was against the rule. I was dubious whether the error could cause so much trouble; yet she reported back to me within a month with the statement that all her disagreeable symptoms had disappeared and that she had regained all of her lost weight. That taught me a lesson, and since then I have been extremely careful to look for even the smallest amount of astigmatism and to incorporate it in the prescription when prescribing the lenses.

We may say then that the tremendous demands of civilization on the eyes make it absolutely necessary to conserve as much as possible the nerve forces of our patients; that it would seem folly to wait until definite attention is called by the patient himself to his eyes; but if for any reason any person presents himself to a physician with any suggestion at all of disturbed nervous equilibrium, then the eyes should be carefully examined and glasses prescribed; and the diversion of the energy, previously wasted, into its proper channels is frequently sufficient to turn the scale in the patient's favor. There are two things that patients of this sort need—a philosophy of life and more energy.

And in conclusion I would state that the old joke on Bostonians "that it is perfectly shocking to go around with naked eyes" will some day come pretty nearly working out to be a truism.

135 Stockton St.



## GOITER.\*

By A. B. COOKE, M. D., Los Angeles, Senior Attending Surgeon Los Angeles County Hospital.

Certain facts connected with the goiter problem are so elementary and obvious that they are apt to receive less consideration than their importance demands. Greater interest attaches to the new and speculative; and oftentimes a theory with little more than novelty to commend it will flourish for a time at the expense of well established truths.

The purpose of this brief paper is to summarize a few fundamental propositions upon which any comprehensive grasp of the goiter problem must be based.

The first essential in studying the pathology of an organ is to understand as nearly as may be its physiology. With reference to the thyroid gland this condition is easier named than realized. In the nature of things we cannot hope that the final word will soon be said about the function of any of the ductless glands. But we know enough about the thyroid at least to serve our present needs.

It is generally accepted that the thyroid secretion is the great regulator of metabolism. The maintenance of body heat, the process of growth, the expenditure of muscle energy are all dependent in some important sense upon this secretion. At certain times it is perfectly normal and logical that a large increase in the output of the gland should be required, notably at puberty and adolescence, during pregnancy, and as the result of long sustained mental worry or excitement of any kind. Indeed the enlargement of the gland so familiar in young girls at 12 to 18 or 20 years of age may be properly spoken of as physiological goiter. And so, also, when the condition is encountered during pregnancy and following long periods of anxiety, such as marital trouble or the illness and death of a loved one, we may reasonably conclude that in response to excessive demand the physiologic has become the pathologic. The result of such over-functioning is temporary in the great majority of instances, else goiter would probably be the most common of all diseases.

The correctness of the foregoing conception of thyroid function is strongly supported by the phenomena which attend decrease of the glands secretion by reason of disease process or as the result of over-zealous surgery. The cretin is a pitiful example of congenital deficiency. In myxedema the temperature remains persistently subnormal and every metabolic activity is expressed on a constantly descending scale.

I would not argue that the physiologic explanation just advanced applies to every case. It is to be understood of course that the thyroid gland, like every other organ of the body, is subject to various disease processes, e. g., infection, syphilis, malignancy. But it is clear to me that perverted physiology offers the readiest explanation of most of the cases which are encountered clinically.

It is commonly agreed that about ninety per cent. of goiter cases are met with in women. No other explanation of this striking fact can be offered than that the complex physiological functions of woman and her more unstable emotional nature furnish the conditions which render her more vulnerable. In this connection I may mention in passing a rather curious bit of personal experience, that of my last twenty-five consecutive goiter operations, nine, or thirty-six per cent., were performed on men. Three of the nine were cases of true Graves' Disease. I can only account for this interesting experience on the theory that in the rigid physical examinations required in the recent drafts for army service, many instances of enlarged thyroid previously wholly unknown to their possessors were discovered. It is a matter of daily observation that the average man is quick to seek relief when he learns that any of his bodily organs are not as they should be.

## CLASSIFICATION.

Outside of the largest clinics where abundance of material and perfect laboratory facilities are available it is practically impossible to conduct those technical investigations upon which the finer pathologic distinctions perforce depend. But it is always possible by studying each individual case carefully, by learning to interpret symptoms in the light of clinical findings, by correlating the facts of treatment and operation with the theories of etiology and pathology, to establish a safe working basis for the handling of these cases.

Aside from intellectual entertainment I am not just sure that any real virtue attaches to the scheme of divisions and subdivisions which has been so persistently exploited in the recent literature of the subject. The tendency is rather toward general confusion. Certainly the patient's interests are not materially advanced by prolonged efforts, however painstaking, to determine whether his case falls under the "typical toxic" class or the "atypical toxic" class. The matter of vital concern is, not refinement of classification, but quick and accurate determination of the indications for treatment.

Every goiter is either toxic or non-toxic. Recognizing that any given case may at different times fall under both these heads, it is still proper to say that all cases are included in these two broad classes.

## SIMPLE GOITER.

Simple or non-toxic goiter comprises far the larger class. Under this head falls that very numerous group which I have heretofore designated as physiologic goiter. In addition it embraces the variety so prevalent in certain communities which is supposed to have its origin in drinking water. The great majority of colloid and cystic goiters also belong to this class. Whatever the etiology or the pathologic characteristics of the cases of this group, the important thing to remember about them is that they do not give rise to toxic symptoms. When such patients seek medical advice the object is to obtain relief from

\*Read before the Southern California Medical Association, Riverside, May 1919.

cosmetic deformity, or because of pressure, weight or other mechanical difficulty.

Surgery is rarely demanded in the treatment of simple goiter. This is one of the few diseases for which it may be said that specific medical treatment is known. Iodin is the sovereign remedy. If due care is exercised in the selection of the preparation, extract of the gland is perhaps the best form in which to administer it, though good results are obtained from the iodides with or without topical applications of the tincture. Thyroxin, the active principle of the thyroid isolated by Kendall of the Mayo Clinic, is not yet available; but, if it fulfills its promise, should prove the most valuable of all remedial agents.

When surgery is called for in the treatment of simple goiter it usually entails no particular hazard and the results are eminently satisfactory to all concerned.

#### TOXIC GOITER.

Of the several designations applied to this type of goiter hyperthyroidism is undoubtedly the best because it conveys a definite idea of the disease process. The term exophthalmic goiter is objectionable because it emphasizes a single symptom and one which, though characteristic enough when present, occurs in only about thirty per cent. of cases and then only as a late manifestation, long after correct diagnosis has been or should have been made from other symptoms. The designation, "Graves' Disease" merely does honor to an early writer on the subject, but will doubtless live always in the literature.

The general term toxic goiter seems to me far preferable to any other because of its comprehensiveness. Attempts to classify into separate groups and subdivisions only lead to confusion. Does the goiter give rise to dangerous symptoms? Then it is a toxic goiter. That is the important point for the clinician to determine.

The symptomatology of toxic goiter is by no means uniform and constant. There may be no visible enlargement of the thyroid gland;—this is the one distinctive feature of simple goiter. There may be—in the majority of cases there *is*—no protusion of the eyes. But there *must be* a persistent tachycardia for the diagnosis of toxic goiter to be justified. Let us be perfectly clear on this point. A persistent tachycardia does not necessarily mean toxic goiter; but a toxic goiter is invariably marked by a persistent tachycardia. In my judgment a persistent tachycardia alone, when it cannot be otherwise satisfactorily accounted for, justifies at least a tentative diagnosis of toxic goiter.

Confirmation of the diagnosis depends upon the so-called minor symptoms. Of these tremor and muscular weakness with gradual loss of weight are the most constant and reliable. In my ex-

perience the tremor is a very constant symptom even in mild and early cases. Muscular weakness occurs later and is usually attended by loss of weight in spite of an exaggerated appetite and increased intake of food. Mental irritability, degenerative changes in the heart muscle, the several eye symptoms, etc., are to be regarded merely as useful, but not essential, corroborative evidence in reaching a conclusion.

Summing up the question of diagnosis I think we are warranted in saying that, given a case in which there is an enlargement of any degree in the size of the thyroid gland and in which there is a persistent tachycardia, the diagnosis of toxic goiter is reasonably certain. If in addition tremor is present I personally feel that there remain no grounds for doubt.

The indications for the treatment of toxic goiter are as definite and unmistakable as for the treatment of simple goiter. Let me say at once that I am fully persuaded the indications in the great majority of cases are best met by surgery. To be sure, temporary benefit may be obtained from rest in bed, sedative remedies, the application of the Roentgen-rays and other therapeutic measures. But in the light of our modern knowledge surgery offers the only dependable means of positive and permanent cure.

At the risk of seeming gratuitously presumptuous I venture here to sound a note of warning. There is no place for iodine or iodine bearing compounds in the treatment of toxic goiter. A sovereign remedy in the treatment of simple goiter, it holds only mischievous, not to say disastrous, possibilities when administered to the hyperthyroid patient. This point cannot be too strongly emphasized. There can be no doubt but that many a confiding patient has been speeded toward the "great adventure" by failure of his physician to recognize the distinct therapeutic indications in the treatment of the two classes of cases.

There is no more satisfactory field in surgery than that of toxic goiter. The results are uniformly gratifying; they are often decidedly brilliant. In the advanced stages the dangers, of course, are great. But the newer methods of handling such cases both before operation and in the operation itself have done much to lessen the risk involved. And happily, this desperate type of cases is becoming more and more rare as the public becomes better informed on the subject.

I am keenly sensible that there is little to justify the presentation of a paper like this before this body. Let the purpose which inspired it also excuse it. That purpose was to call attention to certain simple but vitally significant truths about goiter, lest in our interest in the novel and theoretical we lose sight of fundamental principles.

Hollingsworth Bldg.



## CANCER OF THE EAR, NOSE AND THROAT.

*As Well as Tuberculosis, Lupus and Various Minor Affections Treated by the High Frequency Current; With Report of One Case of Carcinoma of the Superior Maxillary.*

Illustrations Used in This Paper Are From  
Dr. W. L. Clark's Publication.

CULLEN F. WELTY, M. D., San Francisco

When a procedure is recommended for the treatment and cure of cancer, tuberculosis or lupus, it at once attracts our attention because all the surgical procedures heretofore have been so unsatisfactory.

During the past year I have seen some twelve cases of cancer of the tongue, tonsil or of the nose, besides four cases of cancer of the larynx. Some of the cases have been operated, some have refused operation. However, the whole lot of them are now dead.

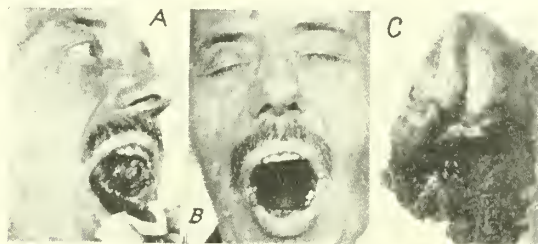


Fig. 1. A—Advanced squamous cell carcinoma of the tongue of four months' duration in a man, aged 46, referred by Drs. John B. Deaver and Walter Ziegler of Philadelphia. The cervical glands were involved and treated by the roentgen ray. The tongue was amputated at the line of the tonsils by the electrothermic coagulation method under general anesthesia, without hemorrhage. Little pain or discomfort followed the operation. B—Result after electrothermic treatment. No local recurrence in two months. This photograph is shown to demonstrate the practicability of amputation of the tongue by the electrothermic method. C—Tongue in another case immediately after amputation by this method. Note coagulated area at distal end.



Fig. 2. A—Rodent ulcer involving bone of maxilla and mandible, of three years' duration, in a man, aged 50, referred by Dr. William H. Schnudt of Philadelphia. One electrothermic coagulation treatment was given under ether anesthesia in April, 1915. B—Result. No local recurrence in eight months, when patient died with what was diagnosed as abscess of the brain by the attending physician, but which may have been metastasis.

I wish to say that this high mortality is probably at variance with mortality tables covering a greater number of cases. It is a known fact that occasionally a case will get well, but I should say

the mortality must be near 80 or 90% for those that live for one year or more.

It naturally follows that any procedure that offers anything better than this would be accepted very readily.

A publication by Dr. W. L. Clark appeared in the Journal of the American Medical Association, of October 26th, 1918, entitled "Cancer of the Oral Cavity, Jaws and Throat; Treatment by Electrothermic Methods or in Combination with Surgery, the Roentgen Ray, and Radium; With an Analysis of Two Hundred Cases So Treated." At once I wrote for particular instructions regarding the use of this high-frequency current. Correspondence was unsatisfactory and I made a trip to Philadelphia to see the work for myself.



Fig. 3. A—Epithelioma of tongue of six months' duration in a man, aged 74, referred by Dr. J. C. Biddle of Fountain Springs, Pa. B—Result of dessication treatment under local anesthesia in May, 1911. There were enlarged glands on both sides of the neck in this case, which were probably inflammatory, since they disappeared after the treatment of the tongue lesion and the application of the roentgen ray to the neck. There was no recurrence in four and one-half years, when the patient died of some other disease.

To quote Dr. Clark, rationale of the dessication method is as follows:—

"The effect of heat when applied to the living tissue varies according to its intensity, from simple hyperemia to carbonization. Somewhere between these antithetic points, there is a thermic degree, the effect of which is more than hyperemia, but not the extreme effect of carbonization. I have called this the dessication point, because this word seems to describe the effect produced upon the tissues better than any other term. When a thermic intensity at the dessication point is generated, controlled and sustained upon or into a given area of tissue, dehydration of the tissue ensues. The cell capsule is ruptured and what before was a living tissue, is then transformed into a dry, inert, sterile mass. (These facts have been proven by microscopical studies.) Just enough heat is generated to devitalize tissue without actually carbonizing it. At the dessication point, living or cadaveric tissue as well as vegetable matter or substances such as hard soap which has been hydrated, may be dehydrated through a sheet of white paper without charring or discoloring the paper, and the transformed matter pulverized between the fingers. The heat is transmitted through the paper without discoloring it for the reason that the thermic degree is not carried to the fusing point, and the paper is not a sufficient

obstacle to prevent the heat from being transmitted through it. If the heat intensity is increased, the paper will be charred, and if carried farther, it will ignite. This dessicating action may be superficial or carried deeply into the tissues at will. Eminent physicists are in accord with me as to the correctness of the dessication principle and I submit this method as an addition to our armamentarium for effectively meeting some surgical conditions."<sup>\*</sup>

In other words, the carcinomatous cell is at some time a localized affair—it is a recognized

every chance in the world for a complete cure.

Another case of leukoplakia along the inner side of the cheek; very extensive. Dr. Clark said that he thought the patient would make a permanent recovery.

I saw more than half a dozen such cases that



Fig. 4. A—Basal cell epithelioma of the upper lip in a woman, aged 72, referred by Dr. William Hamilton of Philadelphia. One dessication treatment was given in September, 1914. B—Result. Note absence of contracted scar. No recurrence in nearly four years.

fact that all new cell formation is less resistant than older cells and tissue, and for this reason the cancer cell is destroyed far beyond the healthy cell by the use of the high-frequency current.

During a period of two weeks, I saw between three and four hundred cases of all kinds.

Some very extensive and large; all of the group had been tampered with in one way or other.

Two cases in particular were cancer of the tongue. In one, the organ was completely removed by the high frequency current. The patient had a slight hemorrhage five or six days following. As to the ultimate outcome, I cannot say, but I am fearful of a recurrence in this

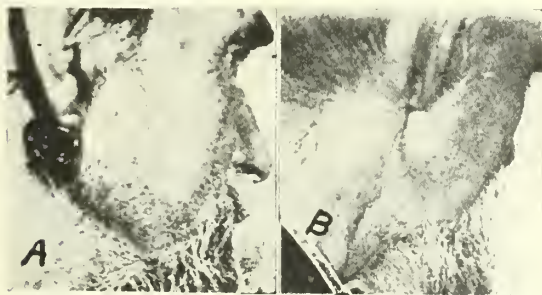


Fig. 5. A—Basal cell epithelioma, involving tissue and bone at angle of jaw, in a man, aged 73, referred by Dr. John Hedges of Philadelphia. The roentgen ray had previously been used without success. One dessication treatment under local anesthesia was given in March, 1917. B—Result of one treatment. Note absence of contracted scar. No recurrence in one year and a half.

particular case, because the induration continues into the floor of the mouth. The second case was a small epithelioma of the tongue, with

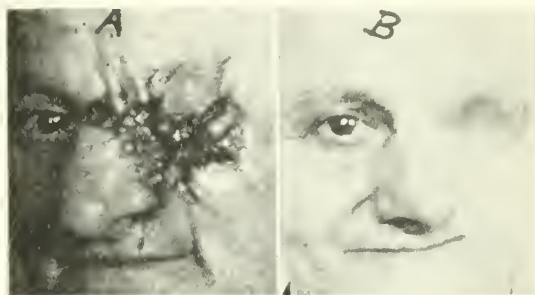


Fig. 6. A—Epithelioma involving nose, cheek, brow, eyelid, globe, and bones of orbit and antrum in a woman, aged 59, referred by Dr. T. L. Bradford of Philadelphia. Roentgen treatment had previously been used unsuccessfully. One intensive electrothermic coagulation treatment under ether anesthesia was given in March, 1917. B—Result of one treatment. No recurrence in year and a half.



Fig. 7. A—Epithelioma of lower lip, a recurrence after surgical excision, in a man, aged 75, referred by Dr. Paul Cassidy of Philadelphia. One dessication treatment under local anesthesia was given in April, 1915. B—Result of treatment. Note absence of contracted scar and regeneration of lost tissue in lip. No recurrence in more than three years.



Fig. 8. A—Epithelioma involving upper lip, antrum, septum, nose, alveolus and hard palate, of three years' duration, in a man, aged 66, referred by Dr. J. D. Graber of Royersford, Pa. Previous treatment by plasters and the roentgen ray had been unsuccessful. The case was pronounced hopeless from a surgical standpoint by Dr. John Chalmers DaCosta of Philadelphia. One electrothermic coagulation treatment under ether anesthesia was given, March 1, 1916, and two slight recurrences were treated under local anesthesia by the dessication method. B—Final result, with no recurrence in two years and five months. C—Reconstructed features by the sculpture method executed by Major R. Tait McKenzie of Philadelphia and Mrs. Alan Chesney of Baltimore. A plaster cast was made and the lost features built out in clay. A copper plate of suitable thickness was deposited on the cast by electrolysis and then silver plated. This plate was painted to match the tint of the skin, the mustache added and the plate attached to the rims of the glasses. A similar plate may be kept in place by means of spirit gum without the aid of the glass frames if desired. A plate is under construction to replace the hard palate and with artificial upper and lower teeth, in the hope that the patient may improve articulation and better masticate his food.

\* American Journal of Obstetrics and Diseases of Women and Children; Vol. LXXII, No. 1, 1915.



were cured or in the process of getting well.

I saw probably fifteen cases of recurrent cancer of the cheek or jaw or tonsil that had been operated by the knife by the best surgeons of Philadelphia. Some of them were in the process of complete recovery, while others had metastases elsewhere following the high-frequency current.

I saw three cases of lupus of the nose; two of them well and the other in the process of getting well.

The greatest number of cases were confined to the skin and these were so satisfactory that a cure was promised in many instances.

During the two weeks of my stay I saw only one recurrence at the site of the old lesion. This case had not been seen in more than two years. There were quite a number of cases (six or eight) that had metastases to other parts.

There were other cases that were beyond reach.

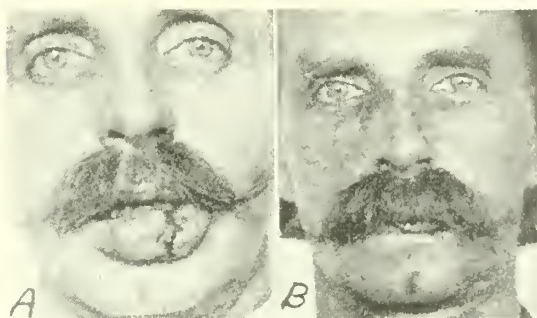


Fig. 9. A—Epithelioma involving the whole of the lower lip, in a man, aged 48, referred by Drs. G. C. Eird and J. F. Ulman of Philadelphia. One desiccation operation to the lip was performed under local anesthesia. B—Result of desiccation treatment. Note absence of contracted cicatrix and regeneration of lost tissue. No recurrence in lip in four months.

During these two weeks I saw more cancer cases than I had seen in my lifetime. From my best judgment I should say that this particular method is doing more to eradicate this particular kind of carcinoma than anything else up to the present time irrespective of radium and X-Ray, and my conviction is that in the near future a way will be devised to use it in the abdomen.

Dr. Clark reports an extensive carcinoma of the nose and accessory cavities—cured. (I will show you the picture.)

This very case illustrates the possibility of using the current in cavities, and for that reason I am going to use it in the first case of carcinoma of the larynx that has a chance for recovery.

I am going to do it in the following way: First, do a tracheotomy and as soon as the patient can handle the tube well, will do a laryngofissure, opening the larynx wide, applying the current deep to all the involved parts. Keeping this wound open until such time as I consider it should be closed. This is as I see the procedure today. There are so many conditions that may arise that one does not anticipate and therefore, my procedures may be radically different. If I can bring a single case to a successful issue, the pro-

cedure can be further modified in one way or other to make possible the cure of this distressing affliction.

Case A—Age 45. Male. Farmer. Referred by Dr. Blake Franklin, November 15, 1918. Up to the present time the patient has been in the best of health. About November 1st, had the wisdom-tooth of the upper jaw extracted. Following this, a fungus growth appeared in the tooth socket. This was examined at the Pathological Laboratory of the University of California and pronounced carcinoma. A few days later, patient was directed to me to see what could be done with the use of this particular current. Another specimen examined by St. Francis Hospital Laboratory, confirmed the original diagnosis. As there was considerable pyorrhea of all the teeth, they were all removed and in two weeks proceeded with a light high-frequency apparatus. Patient returning in one month. Additional growth had appeared, again confirmed by laboratory examination and another more extensive operation performed, this time going well into the bone. When the operation was completed, no induration could be felt at any place. In less than a month, he returned again with a fungus-like growth confined to an area about the size of the end of the small finger. Carious bone from the previous operation had not entirely separated and as this bone was not loose, it was not disturbed. Two months following this, I removed five different pieces of bone; the smallest being larger than the ordinary bean. The largest piece, about two inches long and a quarter of an inch wide. Going over this entire cavity with a probe, I could not detect any additional uncovered bone. The case should heal rapidly. If it does not, I will again go over the field more extensively than ever.

Dr. Clark tells me that a second, third and fourth application may be used with a possibility of effecting a cure; that you have every chance for a cure as long as the glands in the neighborhood remain free. This is not exactly so, because he has had some cases that have died of metastases to a distant part.

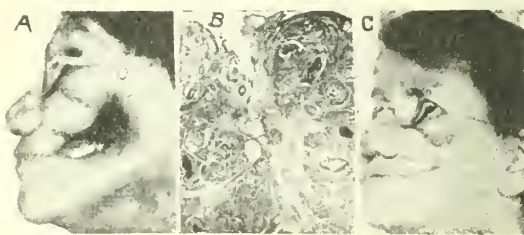


Fig. 10. Squamous cell carcinoma involving antrum, alveolus, hard palate and buccal surface on left side in a woman, aged 60, referred by Dr. E. B. Miller of Philadelphia. Since involvement was extensive in this case and some of the diseased tissue was inaccessible, preliminary surgical removal was done by Dr. G. M. Dorrance, followed immediately by electrothermic treatment. A—Result of this treatment. No recurrence in fifteen months. B—Low power photomicrograph (showing prickly cells) on which diagnosis was based. C—Result of plastic operation in which tissues were separated from bony attachments, and cheeks drawn together and sutured.

## AVIATION'S DEBT TO MEDICINE.\*

By CHARLES G. STIVERS, M. D. (Los Angeles),  
Major, Medical Reserve Corps, U. S. Army.

Aviation presents two problems: one dealing with the mechanical, the plane and its equipment, and the other with the flier and his endowments and adaptations.

With the mechanical this paper has nothing to do, but deals with the choosing of the men who were to be trained as pilots and the care of them after they had learned to pilot planes.

This care of the pilot during the recent World War included the determination of the fitness of various fliers for all the different military activities. Men were selected for pursuit, for bombing, for observation—for high and low altitudes and for ground work only.

It is my contention that many valuable lives have been saved by this care and that aviation has been safeguarded by medical science.

Those unfit to fly at all because of gross physical defects have been refused admission to the aviation section. By Medical Research Boards, with headquarters at Mineola, L. I., and branch laboratories at various aviation schools, the further classification of every pilot in the air service has been or will soon be determined. In this way, there have always been available for the demands of the service, lists of men whose abilities were a matter of knowledge.

A pilot who could not stand a low oxygen test was forbidden to fly above his proper level. Pilots who are able to go to high altitudes are allowed to do so. Men who under the low oxygen test showed marked inability to adapt themselves to the air have been forbidden to fly at all and have been placed in their proper status as ground officers.

When we entered the war, the selection of as large a number of aviation candidates as could be obtained was delegated to a group of specially trained physicians, who conducted numerous Aviation Examining Units. These units were located in the large cities of the United States, usually associated with medical colleges and hospitals having well established eye, ear, nose and throat clinical staffs.

An officer of the Medical Reserve Corps, usually a captain, was placed in charge of the unit, which was composed of a number of eye, ear, nose and throat specialists and internists—civilian consultants so-called. The place of examination was usually in the building where the clinics of the medical college or hospital were held. Applicants appeared early in the morning at this unit, and were given a strict examination to determine their fitness for selection as candidates for training as pilots. The candidates were often college men, many being trained athletes, but some of our noted aviators have been of slight build, with practically no previous athletic training.

In the physical examination emphasis was placed on normal vision, hearing, and balance sense, to-

gether with normal respiratory, circulatory, digestive and kidney functions.

The strictness of the examination is seen by the fact that in earlier days the percentage of rejections from all causes was often as high as 60 to 75 per cent. of candidates examined. The mental examination which followed the physical was designed to show the mental alertness but not the depth or extent of the candidate's mental equipment. This examination rejected as large a per cent. as the physical, so that those candidates who were finally chosen to be sent to a ground school were, in every sense, picked men.

In the later months of the war enlisted men of the aviation section and other branches of the service were allowed to take the examination. Being already of physical excellence, fewer rejections followed and the percentage of successful candidates rose accordingly.

The physicians who composed the Aviation Examining Units gave their time and professional skill absolutely without pay. The sum total of their voluntary contributions, if measured in money, would amount to a very considerable "Liberty Loan" indeed.

The equipment of most of the medical colleges in this country was placed at the disposal of the aviation section without any charge for rental of examining rooms.

After passing the physical examination, successful candidates were sent to a ground school, usually connected with and contiguous to a large university. At the ground school the candidate became a member of the Enlisted Reserve, and was trained in military drill and lived the life of the soldier.

After graduation from this ground school came a course of training at a School of Flying, ending, when successful, in the commission of the candidate as an officer in the aviation section.

Flying cadets and pilots are constantly under the supervision of trained medical officers called Flight Surgeons, the nature and scope of whose duties are the classification and care of fliers.

It was formerly the custom to speak of pilots having the aviator's temperament, but it is generally conceded that the average picked man can be taught to pilot a plane. The altitude at which he can successfully operate his plane, is a matter that is determined by the Flight Surgeon and his unit connected with the Flying School.

The conquest of the air by the earlier pilots was thought to be near the supernatural—a view held by the masses concerning the early history of the accomplishment of skill in many of the arts, sciences and professions. In relation to flying, it was thought that some special sense enabled pilots to maintain the mastery of their planes in the air, but much of this fog of ignorant conclusions has been dispelled by a more intimate study of the genesis and mechanics of flight.

It is true that aviation demands a high degree of physical perfection, but almost anyone with normal sense of balance, normal vision, hearing and internal ears (semi-circular canals and cochlea), with a healthy body and an alert brain, can be taught to fly.

\* Read before the Eye and Ear Section, State Medical Society, Santa Barbara, Cal., April 15, 1919.



The greatest medical achievements of the war were, first, the Carrel-Dakin method of wound treatment; second, the use of bone-grafts; third, plastic surgery, especially of the head; and fourth, the selection and classification of aviators.

The classification of aviators alone is a distinct discovery made during war times; the others, although great and useful, were all being used by medical men before the present war.

Having learned "straight flying" and the elementary branches, the pilot becomes the subject of study to find out his particular capabilities for more advanced work. In order to be master of actual combat flying, the pilot must have learned "stunt" flying—that is, must be able to take his plane into and out of all tight places. He must be able to loop, spiral, nose-dive, tail-spin, or sideslip at will. His judgment must be unerring—to tell him when and how to do these necessary stunts—and his physical condition must be such as to answer all demands during their performance. His motion-sensing apparatus and his ears must be in a healthy functioning condition, for it is the flier who flies by his sense of being at all times balanced in the air, who is the most at home in the air. Your pilot who depends on his eyesight to tell him his position in space is apt to find himself in many places where his eyesight is useless to him; for instance, at night, or in a dense cloud, or thick fog, or while experiencing the vertigo induced by the whirls of a loop, spin or dive. The flier by sight is apt to be a careful and painstaking pilot, but not a brilliant one. The combat pilot must be able to stand the highest altitudes, to adapt himself to low oxygen per cent., for the reason that to escape anti-aircraft guns he must go up at least 16,000 feet.

It is an axiom that the higher in the air a plane is the safer the pilot is, for the reason that he escapes shell-fire and has plenty of room to observe and maneuver. Crashes occur most frequently when "stunts" are pulled too near the ground.

How, then, to pick out the stunt flier and the high flier? The stunt flier should be a man who has learned to interpret the various sensations of vertigo produced in flying and how to correct them.

All vertigo depends on the reaction of the fluid in the semi-circular canals, and this reaction is the same whether induced by a laboratory experiment in a specially designed whirling chair or apparatus, or in actual flying.

For obvious reasons, no clinical study of vertigo can be made while flying, but cleverly designed apparatus has been devised for the testing of vertigo on the ground.

The actual demonstration to the pilot of the vertigo produced, and the corrective methods to be employed, has been the means of preventing many crashes.

It is true that the veteran stunt flier is not usually upset by the vertigo produced by stunting, because of the great practical experience he has had, but a knowledge of the principles involved has undoubtedly saved many a pilot's life.

The actual testing of an aviator on the ground,

and not in the air, where he would be in danger of a fatal accident, is one of the most brilliant achievements of recent years and is carried out by the use of an apparatus known as the orientator. It resembles somewhat the cockpit of a plane suspended in concentric rings. The movements (or changes of position) can be made in any plane and any direction except actual forward or backward progression, and are governed by the pilot seated in the apparatus. His controls are like those of an airplane and he can make any desired evolution, such as the spiral, loop, etc., at any desired speed and for any number of revolutions.

He learns in safety of the reactions set up in his internal ear canals during these evolutions, and acquires a tolerance for the vertigo produced and learns how to adopt a corrective posture to mitigate or do away entirely with its effects. Let us see how this is done. The internal ear has three sets of canals or minute tubes holding fluid, placed at right angles to each other. The fluid is free to move in any direction, to follow the movements of the head. Fluid movement sends messages to the brain, where it is interpreted as body movement.

Movement of the fluid in the internal ear canals occurs during either flying or laboratory examination. This circulation of fluid is always in a definite direction, depending on the direction of the bodily rotation. If this rotation be suddenly stopped or changed, the fluid in the canals keeps on moving by the force of its momentum. This is interpreted by the brain as body movement, but not being in accordance with facts, sets up a dizziness or vertigo very disturbing to the pilot unless he knows how to adopt corrective measures.

A brief review of the three planes of vertigo: horizontal, frontal and sagittal, will help us to understand the application of corrective measures.

Each semi-circular canal (both right and left ears react together) when stimulated sets up a vertigo in its own plane. Horizontal vertigo is less disturbing than vertical (probably from an acquired immunity: we are constantly turning in a horizontal but hardly ever in a vertical plane).

When a vertigo sufficient to upset the flier is produced in the vertical canals, the effects can be lessened by bringing the vertical canals into the horizontal plane—that is, by turning the face downward. Pilots learn to interpret vertigo, and the more often it is repeated the greater the immunity set up.

The study of vertigo during laboratory experiment has led to the application of corrective measures to mitigate the vertigo induced by stunt flying.

**THE LOOP.** In this stunt the vertical canals are stimulated in the sagittal plane—the body being whirled over and over head first, making complete revolutions as does the acrobat in tumbling. The correction for the vertigo in flying is made by placing the head sharply over to rest on the shoulder.

**TIGHT SPIRAL.** The body is practically parallel to the ground, but the eyes are fixed on the horizon. The vertical canals are stimulated in a plane parallel with the ground and the endolymph current is horizontal. When the spiral is straight-

ened by the aviator coming out of his spiral, the position of the body changes to vertical, and the vertigo becomes vertical in a sagittal plane (from before backward, or opposite to the direction of turning).

To test this in the whirling chair let the candidate be placed with his head resting on one shoulder. The vertigo is the same as that induced by the spiraling of a plane.

The remedy for the aviator is to throw his head over on one shoulder when coming out of the spiral, since by doing so he has produced the impression that the vertigo is horizontal and not vertical—hence not so disturbing.

**SPINNING NOSE-DIVE.** The plane is approaching the earth rapidly in a whirl with its nose (engine or front end) down. The pilot's body is nearly parallel to the ground, and the fluid in the vertical canals is set in motion in a frontal plane. When the plane "comes out" of the nose-dive and straightens out, the position of the body and head being altered, there is a vertigo produced in a vertical plane, but in an opposite direction to the direction of the spin. This produces a sensation of moving in an up-and-down plane, which upsets the pilot's sense of equilibrium. He is apt to attempt to overcome it by throwing his head into a horizontal position, and, by kicking his controls, throws himself into another tail-spin.

The remedy for the aviator is to keep his head down when coming out of the nose-dive, so that the vertigo remains in the horizontal plane.

**THE REVERSEMENT OR TURN OF DIRECTION.** In this stunt the fluid in the vertical canals is set in motion. In the first or loop part of the reverse, it is moving in a sagittal plane. In the following part of the reverse, the fluid in the canals is stimulated in a frontal plane. The vertigo (if any) of the sagittal plane is lost in that of the subsequent frontal plane, which is the one the aviator has to come out of when his machine returns to a level flight. The vertigo being on a frontal plane, the correction to be made by the pilot is to keep the head well forward and down when about to come out of the reverse. By testing aviators with laboratory apparatus such as the whirling chair and the orientator, they may learn in safety the correction of induced vertigo. As the vertigo produced in flying is the same as the experimental variety, the practical application may be seen at a glance.

As repetition produces a tolerance, this may be obtained, to some extent at least, in the safety of the testing laboratory. Experienced aviators, who have been tested by the otologist in the experimental whirling to simulate actual flying conditions, have testified to the corrective value of certain changes in the position of the head, declaring that they operated the same whether flying or while being tested on the ground.

It is obvious that the knowledge of how to avoid crashing to earth as a result of vertigo, has saved many valuable lives.

The classification of aviators—their ability to withstand low oxygen tension—is determined by a test with the Henderson rebreather apparatus.

During this test the candidate is obliged to re-breathe his own expired air and so exhausts the oxygen. The percentage of oxygen he can remain efficient on represents practically a certain altitude to which he is adapted.

Atmospheric air contains always 21 per cent. of oxygen, but the atmospheric pressure lessens as altitude is attained and the absorption of oxygen by the blood falls as altitude rises and barometric pressure falls.

During a low oxygen tension test, three standardized sets of stimuli are used:

1st. Lamps which flash a white or red as the contact is correct or not.

2d. An index hand, whose relative position on a dial may be altered by the operator.

3d. A motor running at either of two speeds, audibly different, which can be changed from one to the other at will.

The candidate has three tasks:

1st. As soon as a light flashes on the board before him he must touch with a stylus held in the hand, a brass button surrounded by a brass washer. The touch being correctly made while the stimulus lamp is lighted, a check lamp flashes. If the washer is touched (by fumbling or groping) a red error lamp is flashed.

2d. The motor is to be kept at a certain (the lower) speed by the candidate operating a foot control—thus correcting the advancing of the speed by the operator.

3d. The index hand must be kept at a certain position on the dial. The operator may vary it at will by a control, the knowledge of the variation being conveyed to the candidate's brain by his sense of sight.

The psychological observer, who also operates the dial and noise mechanisms, notes and makes a record, using a system of symbols, of the appearance of the characteristic effects of asphyxiation on the attention and on the co-ordination of voluntary movements up to the final point of complete inefficiency—beyond which it is unnecessary and inadvisable to go.

Clinicians observe the blood pressure, respiration, pulse-pressure and the effect on sight and hearing.

On the appearance of signs of acute distress, affecting any or all of the systems under observation, the experiment is terminated at once.

By this test, the tolerance of the candidate is established and made a matter of record.

Pilots, after oxygen tension tests are placed in one of five classes:

1st Class or A. A. Particularly resistant to low atmosphere pressure, suitable for pursuit work, etc.

2d Class or A., with no restrictions on altitude, but in whose case some mild condition of impairment shows during the test, slight cyanosis or slight impairment of judgment.

3d Class or B. Should not attempt flights above 15,000 feet.

4th Class or C. Should not fly above 8000 feet on account of some condition such as persistent high blood pressure.



5th Class or D. Should not fly at all. Those cases with undiagnosed organic heart disease showing only under stress of low oxygen.

This class is not necessarily disqualified for ground work.

The signs of a lack of oxygen may be manifested through the failure of any of the vital systems, and it has been found that the symptoms disappear when oxygen is given to a candidate during a test.

It would seem that oxygen in tanks available for the pilot's use at all times would be an essential part of every plane's equipment.

**AUDITORY FUNCTION.** The hearing shows no marked impairment under a Henderson rebreather test until the altitude attained is such as to cause an acute functional derangement of all of the higher brain centers.

In a plane the hearing is often temporarily impaired, especially when descending. This is due to the difference in the atmospheric pressure of the air in the middle ear and that in the Eustachian tubes and auditory canals. Occasionally this pressure has been so great that rupture of the drum resulted.

Acute otitis media has been caused by the irritation and congestion from rapid changes in altitude.

Altitude does not seem to affect disastrously the motion-sensing function.

Re-examinations of aviators at flying fields are made at short intervals, and pilots who are not in perfect physical condition are forbidden to fly. The lives of many men have been saved by keeping them on the ground when they were unfit because of staleness or illness.

406-7-8 Auditorium Bldg.

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### ABDUCENS PALSY—TRANSPLANTATION OF VERTICAL RECTI IN THREE CASES.\*

By RODERIC O'CONNOR, M. D., Oakland.

The surgeon and internist should be interested in this subject because this condition usually complicates some injury or disease. Also the otologist because the symptom occurs occasionally in suppurative process in the apex of the petrous portion of the temporal bone (Gradenigo Syndrome). *They should also be informed that relief is possible in spite of statements to the contrary, in most of the text-books on ophthalmology.* Therefore these cases should not be dismissed as incurable or told to wear a patch over one eye permanently but should be referred to the ophthalmologist early in order that the progress may be watched and operation done as soon as it is certain that power is not returning.

The operation should be done before contracture

starts in the internal rectus because it may then be possible to avoid extensive tenotomies and so obtain a better final functional result. Usually a paralysis shows early improvement and a fairly rapid progress toward its final position. If the paralysis is *complete* at the end of three months from its time of onset, in spite of proper treatment, I should say there would be too slight a prospect to warrant further delay.

In cases of incomplete paralysis operation should be delayed till progress toward cure has stopped. In these cases I believe better average results would be obtained by doing this operation omitting tenotomy of the internus than by the usual tenotomy with shortening of the externus. In cases of congenital paralysis, or absence, of the externus, contraction of the internus seldom occurs, so there is no great need for hurry for that reason. However these cases should be operated as soon as a general anesthetic can be given in safety in order to save the vision of the squinting eye and put the *pair* in shape to develop binocular vision.

In a complete case the eye stops, in outward rotation, at a position about 10 degrees internal to the median line of the orbit, therefore if the eye can reach that point the paralysis is not complete and the prospects are better for a good result.

My cases are all of the complete variety, the first being congenital the second acquired but operated before contracture of the internus had set in, the third acquired but operated after contracture which interfered with a complete result in spite of the excellent outward rotation secured. In the second case the result was obtained without a complete tenotomy of the internus, in fact without even a lengthening. The details of the three cases follow.

Case I. This was a girl of 8 in which the squint had existed to the knowledge of the mother since the second year and in fact was probably a congenital case. Fig. 1, while a picture of another case, shows the lack of outward rotation as it was a complete paralysis. There was about 35 degrees of arc squint with hyperphoria in the squinting eye. Operation was done August 4, 1916 with the assistance of Dr. E. F. Glaser. No tenotomy of the internus as I wished to prove that any outward rotation obtained was due to the transplantation itself. Seventeen days later outward rotation was 25 degrees of arc with 10 degrees remaining squint. So the internus was lengthened on this date. One week later the eyes were straight cosmetically and outward rotation was between 40 degrees and 45 degrees measured on the perimeter by light reflection test. Two years later she tested esophoria one degree in primary position, no diplopia within the limits of her glasses, binocular vision of the second degree, and an outward rotation of 35 degrees. The result therefore was practically perfect both from the cosmetic as well as the functional standpoint.

Case II. This case was referred to me by Dr. Louis Green who assisted in the operation. The paralysis was complete and caused by a fracture of the skull received eight months before date of operation. There was an esotropia of 30 degrees

\* Read before the Forty-eighth Annual Meeting of the Medical Society of the State of California, Santa Barbara, April, 1919.



Fig. 1. Upper. Shows the degree of squint. Middle shows position of eye in attempting to reach the primary. Notice light reflex on cornea is external to its center proving failure to reach the primary position. Lower. Shows position in attempting to look at finger and the failure again to reach even the primary position. By noting the features it can be seen that there was no change in position of head. This is a picture of case 2 but all three were identical as far as position of the eyes.

of arc with one-half degree hyperphoria. Outward rotation stopped well short of the primary position thus making it a complete paralysis. Operation done February 19, 1917. In general the method was as in the other case but was extremely difficult as he was almost unmanageable. Satisfactory slips from the vertical recti were not obtained. I tried to increase the effect by suturing them closer to the externus attachment thus increasing the tension and decreasing my final result. No tenotomy of any kind was done at first operation. Feb. 26th he tested 6 degrees esotropia with hyperphoria unchanged. Held primary position without diplopia and had an outward rotation of 10 degrees. Feb. 27th a central tenotomy of the internus was done leaving a couple of fibers at each margin. The immediate result measured exophoria 5 degrees. On March 5th he held primary position easily and had an outward rotation of 16 degrees. On this date he disappeared and I have not seen him since. I had intended to either complete the tenotomy or convert it into a lengthening which should have increased the outward rotation by at least 10 degrees judging from the other case. The result in this case also shows the advantage of working in the absence of contractures.

Case III. This was referred to me by Dr. Galbraith of Oakland. It was a complete acquired paralysis of five years duration in a man of 50 years. There was considerable contraction of the internus and the squint measured 65 degrees. Contraction was also present in the internus of the other eye which also had a weakened outward rotation. Operation on Dec. 5, 1918 under cocaine anesthesia. He was an excellent patient and all the steps of the operation were carried out entirely to my satisfaction. Because of the contracted internus a full tenotomy was done. The immediate result was a reduction of the squint to about 20 degrees and an outward rotation of about 20 degrees beyond the primary position. Healing was uneventful and on Dec. 23rd there was a remaining squint of 15 degrees with an outward rotation between 30 and 35 degrees both measurements being made on the tropometer. Further work in this case will be needed to secure a complete cosmetic result and it is my intention to lengthen the internus of the other eye because of its contraction and possibly cut the inner halves of the transplanted vertical recti thus still further increasing the outward rotation.

Results: These are to be judged from two standpoints, cosmetic and functional, and I think the latter is the more important for if possible of attainment the other is bound to follow. This statement should be qualified by providing for operation before contracture starts in the interni. We all know how difficult it is to obtain satisfactory results in cases of long standing internal squint of the monocular type where the externi are atrophic and the interni contracted. In all the successful cases the results appear to be permanent and even tend to get better as time goes on, and the muscles with their innervations learn to adjust for the new relations.

The fact that binocular vision has been restored in a number of the reported cases seems to show that the muscle action is guided entirely by the fusion sense irrespective of what individual muscle or nerve is employed to secure the necessary movement. If this is so the transplantation principle can be employed in other paralyzes such as:

1. Of the internus of which the most frequent is that following too extensive tenotomy for convergent squint. In this case the inner halves of the vertical recti would be used.
2. Of the superior rectus in which case we would transplant the upper halves of the horizontal recti. I have two cases of this kind under observation at the present time neither of which have binocular vision so there would be no worry as to diplopia.
3. Of the inferior rectus in which the lower halves of the horizontal recti would be used.
4. Of the superior oblique for which there appears to be no available transplant and it is a frequent paralysis. For this there seems to be only tenotomy of the inferior oblique or Jackson's operation of transplanting the superior rectus further out on the globe and in this way substituting in part for the pull of the oblique.



In looking over the literature available to me I have been able to find, including mine, thirteen cases reported one of which was of double congenital absence of externi and therefore required two operations. The appended table gives the data in each case as given by the reporter. It will be noted that it is far from exact in most of them. However it shows in a general way that the cosmetic results were complete in nine and in four the remaining squint being slight relatively. As to the functional results six secured over 30 degrees of outward rotation, one sixteen degrees (without an appreciable amount of work on its internus), while in the other six either none or extremely slight degree. With such results possible in an otherwise hopeless condition there is no doubt but that the patient should be given the chance.

*Technic of the operation as done by me.* In the March number (1919) of the American Journal of Ophthalmology I reported my first case and there went into considerable detail as to the operative technic. It is hardly worth while to repeat here as you all undoubtedly see that journal. My modifications of the operation consist in shortening a middle section of the externus, making slips from the upper and lower portions of the tendon to bridge in the space between the vertical recti transplants and the externus attachment. In this way the object desired is gained without tension on sutures and at the same time something is gained by the shortening of the middle portion of the externus, both in the position and possibly in lessening the chance of causing a vertical deviation by our operation. As to cutting the interni. This should not have to be complete if we operate before contracture is established as shown by two of my cases, one of Hummelsheim's, and Moran's.

#### Summary of Cases Found in the Literature

##### A. Cases of complete paralysis.

1. Hummelsheim's (second). One of acquired of eight months' duration in which an "excellent" cosmetic result with 45 degrees outward rotation and no diplopia except at extreme limit of rotation, was secured.
2. Woodruff's (second). A "good" cosmetic result but no outward rotation beyond primary position.
3. Stuelp. A "good" cosmetic result. Outward rotation "very slight."
4. Todd. A case of congenital absence of both externi. Both sides operated. "Small amount" of remaining squint and "some motion" outward.
5. Tenney. Had only "some improvement" in squint with "slight" outward rotation. Stitches sloughed out early.
6. Weiner. Had an "excellent" cosmetic result and about 30 degrees outward rotation.
7. Moran. This was a case of only three months' duration in which an "excellent" cosmetic result with "free" outward rotation (probably over 30 degrees) was obtained.

##### B. Cases of incomplete paralysis (outward motion to the primary position).

1. Hummelsheim's (first). In this a complete cosmetic result with 30 degrees outward rotation was obtained.
2. Woodruff's (first). Had a satisfactory (almost straight) cosmetic result but no outward rotation.
3. Harris. Had an "excellent" cosmetic result with "practically full temporal rotation" (probably well over 30 degrees).

## THE TREATMENT OF FRESH AND UN-UNITED FRACTURES OF THE FEMORAL NECK.\*

By Ellis Jones, M. D., Los Angeles.

Of all types of fractures an intra-capsular fracture of the neck of the femur is the most disabling. It is the fracture with the highest disability rating and the poorest functional end results. When treated by the usual conventional methods of extension, either by so-called Buck's Extension, suspension, or traction methods, the percentage of poor results is startling.

Scudder reports only twelve per cent. of good results,—many years after the original fracture, in which the leg was functionally useful. Of one hundred and twelve cases treated in Bellevue Hospital in 1906-7, only thirteen per cent. recovered good function. The British Fracture Committee reports only twenty-three per cent. of good functional results.

We have personally observed the end result in thirty-eight cases treated by suspension, traction, or Buck's Extension, with not a single good result.

Such end results in fractures of the femoral neck have been so extraordinarily bad in our observation as to lead to this critical analysis of the treatment employed.

We are forced to the disquieting conclusion that either the profession is unaware of the eventual poor results of the original treatment or else the profession is not actually aware that a better method exists.

Text books prescribe two laws of treatment:

1st: "Treat the patient not the fracture."

2nd: "You must not break up the impaction." There is some truth in this but the effect of such epigrams is bad. The literature on hip fractures is tremendous but of little practical value. The most satisfying contributions in recent years have been made by Royal Whitman and Frederick Cotton.

In the thirty-eight cases personally observed, the treatment apparently has been to put the patient up in some form of adhesive extension and traction, and trust to obtain the good results called for in all respectable text books. Then when union did not occur, to regard it as a sad failure due to the patient's age or inherent inability to produce new bone.

No loose intracapsular fracture of the femoral neck ever unites with firm bony union when treated by traction in the straight line of the body because it is impossible to obtain accurate anatomical reduction by this method. The distal fragment remains anterior, and the normal angle of the neck of the femur is abolished. An impacted fracture may unite if the extension does not break up the impaction, but it is impossible for any *un*-impacted fracture of the neck so treated to unite.

In a fresh fracture union is impossible unless the fragments are in contact no matter how adequate the blood supply or how great the resistance to absorption of the head of the femur. Apposition or contact provides the opportunity for repair.

\*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.



A. Illustrates the effect of traction in the straight line of the body. The fracture is not reduced—apposition not obtained—shortening and deformity persist.

Apposition is obtained only by extreme abduction—the so-called Whitman method. The technique is simple and easy.

The patient is anesthetized lightly; manual or mechanical traction applied and the leg abducted to the extreme limit. An assistant internally rotates the leg, lifting the trochanter forward, and a plaster spica is applied from the toes to the nipple line, with the leg slightly inverted, and strongly abducted. The patient is kept recumbent, with the head of the bed elevated, and the cast is worn for three months, followed by a short plaster spica. Weight bearing is not permitted until the sixth month. This method has given good results in Whitman's hands.

There are several so-called objections to this method. The aged do not bear anesthesia well, but a light gas and oxygen anesthetic is all that is required. With the head of the bed raised we have little to fear from static pneumonia.

Cotton points out the fact that impacted fractures of the neck of the femur almost invariably unite, and advocates artificial impaction of loose fractures. His method is simplicity itself: The fracture is reduced by traction and abduction until the legs are equal. A felt pad is placed over the trochanter and several blows from a heavy wooden mallet drives the distal fragment into the head. A loose fracture is thus converted into an impacted one. Cotton reports twenty-one cases with one failure.

In six cases of fresh fracture of the femoral neck, we have used a combination method with certain simple modifications. The patient is anesthetized and the Whitman method of abduction employed. With the leg in extreme abduction the fracture is impacted by Cotton's method, and a plaster cast applied with both legs in extreme abduction. This cast is applied from the toes to the nipple line on the affected side, and down to the knee on the well side. This modified double spica adequately and persistently maintains reduction and prevents slipping of the pelvis.

This is the only fracture in the body in which overcorrection should be obtained at reduction. This overcorrection can be obtained only by extreme abduction.

Six such cases so treated have given excellent functional results. In two cases the hip was al-

ready impacted in poor position, and we did not hesitate to break up the impaction and reimpact in extreme abduction.

Weight bearing should not be permitted until the radiograph shows firm bony union. We have not found it wise to permit weight bearing before the eighth month. The average length of time before satisfactory function was obtained was thirteen months. Our reason for advocating overcorrection is that during the early months of weight bearing some yielding of the neck may occur which explains the coxa vara observed in cases otherwise anatomically satisfactory.

We realize that our cases are limited in number, but the results are in striking contrast to the results obtained by traction in the straight line of the body.

What are we to do with our cases of non-union? We have been in the habit of transplanting, using the tibial bone graft and pegging it through the neck and into the head of the femur. In nine cases we have had four definitely good results. Five cases were failures. It is unreasonable to hope for successful results by any such method when absorption of the head has already occurred. Absorption of the head undoubtedly occurs early in the fracture, and our results from



B. Diagram to illustrate the anatomical reduction obtained by the Whitman method of abduction. Note the extreme abduction necessary to correct the fracture deformity.

bone transplantation are still problematical. After a year or more of undoubted nonunion removal of the head and an arthrodesis of the hip joint is our only resort. A stable, firm, dependable joint is infinitely to be preferred to a painful yielding pseudo-arthritis. Of the thirty-eight patients examined, years after the original fracture of the neck of the femur, only two were working, and these two were not fit to work. The laboring



man with a pseudo-arthritis, secondary to an ununited fracture of the femoral neck, is a total economic loss. He is not such a loss with a firm stable hip properly arthrodesed.

#### SUMMARY.

(a) The extension method of treatment of fractures of the femoral neck gives results far too poor to justify its use.

(b) The Whitman method is simple, reliable and efficient, and has given good results in Whitman's hands.

(c) The author advocates a combination of the Whitman abduction and the Cotton impaction methods supplemented by an attempted overcorrection in reduction of the fracture, and the immobilization obtained by a double plaster spica. The abduction should be complete in all cases and weight bearing should be prohibited until the end of eight months. Such a method promises to prove a satisfactory solution to a most difficult surgical problem.

1202 Brockman Bldg.

### WAR WOUNDS OF THE SINUSES WITH X-RAY PLATES.\*

By HAROLD A. FLETCHER, M. D., San Francisco.

The problem of instruments for sinus work was a very hard one in France until just before the armistice. The specialist had at his disposal very little other than the regulation ear, nose and throat canvas roll, the regulation box of eye instruments, and a few things that he could obtain from the general operating sets. Just before the armistice our requisitions for additional special instruments were being filled.

One serious drawback to the army roll is that its originators absolutely forgot, or did not recognize, the existence of the ethmoid, frontal or sphenoid sinuses. They did, however, provide a satisfactory trocar and canula for the maxillary sinus. It is particularly disagreeable not to have a single forcep, curette or probe suitable for ethmoid and frontal sinus work; especially when so many influenza cases have a complicated frontal sinusitis; even more disagreeable when you get gunshot wounds of the sinuses, with retained fragments. So in reporting the following cases of gunshot wounds of the sinuses, let it be understood that in their treatment one might have done differently in their own office or hospital, and at least, could have done them with more facility.

Except those cases which are too severe to be moved from the evacuation hospitals, most of our cases arrived from two to six days after being wounded, and had from a few hours' to two days' stay in an evacuation hospital, after which a two to four day ride in a hospital train. During this time they could receive little or no surgical attention. All cases of course were infected.

The data we received with the patient was in the shape of brief notes on the field medical

card; of treatment received in the evacuation or field hospital, and brief X-ray report. These cards were often illegible, through hurry, dirt and blood, but were important in showing approximately the diagnosis and what had been attempted.

In general gunshot wounds involving the sinuses are not hard to treat, unless there is great destruction of tissues necessitating plastic work, or where they are complicated with brain lesions or are connected with the orbital tissues. In the first place every one knows the tendency of the bones and mucus membranes of the nose, to knit and heal quickly. In the second place, the American soldier in France is an especially healthy and strong individual, whose wounds heal quickly. Where there is great exterior destruction necessitating future plastic work, it is of primary importance to secure drainage into the nose and as soon as possible to get the lining of the cavity either normal or filled in with tissue. In the case of connection of the sinuses to the cranial cavity, or orbital tissues, drainage must be secured and at the same time, care used not to excite the already partially or wholly walled off process to extend deeper. In fact, the treatment of these cases is just one of ordinary surgery, plus the guidance of the specialist in removing foreign bodies, cleaning up the debris, and maintaining drainage down into the nose, and controlling the exuberant granulations.

#### Case I. Sgt. K. 355th M. G.

Entered the hospital September 11, 1918, having been wounded on the morning of September 8th, a small piece of shrapnel having entered face 2 $\frac{1}{2}$  cm. below the inner canthus of the right eye.

The wound was about 1 cm. by 1 $\frac{1}{2}$  cm., infected and discharging muco-pus. Patient stated that when he blew his nose, air came through opening. Probe entered wound about 3 cm., touching rough bone most of the way.

Examination of nose shows swelling and inflammation around right middle turbinate. Septum markedly deviated to right. The following day X-ray plates showed a small foreign body in region of posterior ethmoids close to septum. Probing did not reveal presence of foreign and under fluoroscope probe could not be made to touch it.

*Operation:* Sub-mucus resection of septum to allow room for operating post ethmoids. The posterior tip of the right middle turbinate was removed with snare and forceps. The region of the post ethmoids was found somewhat macerated and covered with fresh granulations. The posterior ethmoid labyrinth was then opened and partially removed, after which by careful probing both under the fluoroscope, and by feeling, the foreign body was located and removed with forceps. The post ethmoids were then cleared up, and the surface sprayed with Dichloramine "T." A small loose pack saturated with D. C. T. was left in place and a similar drain placed in the external wound.

After treatment consisted of washing out the post ethmoids with borax solution through the

\* Read before the Forty-eighth Annual Meeting of the Medical Society of the State of California, Santa Barbara, April 1919.

external wound, followed by D. C. T. spray through the wound and nares. Keeping down granulations; and letting the external wound fill in from the bottom. Recovery was uneventful. The external scar was practically nil.

In concluding this case I might say that I had a struggle with the plastic surgeon, who almost insisted upon going after the foreign body through the external wound, which you can easily see would have been well nigh impossible, and would have left a large unsightly scar. He admitted his error afterwards.

Case II. Private R., G. S. W., right malar region.

This case was probably the most serious one I had to deal with.

He entered the hospital on October 15, 1918, having been wounded five days before, from a high explosive shell. One large fragment and several small ones entered the right malar region; the two largest ones passing inward and downward through the right antrum, through the nasal cavity then upward and outward through the left antrum lodging under the overhanging edge of the zygomatic process of the left malar and superior maxillary bone. The explosive force of the large fragment, traveling at such velocity, must have been very great; for both antra were literally macerated, as well as the septum and two inferior turbinates and the floor of the right orbit.

Examination showed both cheeks puffy and oedematous; an opening 2 by  $1\frac{1}{2}$  cm. over external surface of right malar bone. Probe passed downward through right antrum into nose. Both lower turbinates were macerated and large hole found in septum. A great deal of discharge from both nares and external wound, many loose bone fragments throughout course of channel, conjunctiva of both eyes very oedematous, and ecchymotic spots in right bulbar conjunctiva. Both pupils fully dilated and fixed as though with atropin. No light perception in right, and light perception only in left. Both discs swollen, right more than left, with hemorrhages in retina of the eyes.

X-ray examination showed several foreign bodies near site of external wound, and one large and one small one in the left malar region as mentioned.

*Operation:* Under general anaesthesia.

Incision below ant. root of left zygema about 1 cm. and foreign body located with needle probe and carefully dissected out. Opening into left antrum determined and enlarged. Left lower turbinate trimmed off and opening into antrum enlarged below. The right lower turbinate was adherent to septum and partly blockaded the opening in septum; was left in place.

Dakin's tubes were inserted from both right and left external wounds.

*After treatment.* For the first three days Dakin's solution was used in the usual manner, through both wounds, washing out through external nares. After that borax solution was substituted, the purulent discharge having ceased. For two or more weeks there was a good deal of mucous discharge, with frequent fragments of bone

coming away, after which both wounds began to fill in. The oedema of the face and eyes disappeared quite rapidly after the operation. The eyes were protected from the light, as the pupils remained fixed and dilated. The optic discs swelling receded. The left eye improved from light perception to 20/100 when he was evacuated to the U. S. two months later. The right eye still remained blind. With the formation of scar tissue also, the right socket and bulb began to be retracted and there was no muscular motion of the muscles of the right eye ball. The left eye muscles were weak and limited in action. A month after the original operation I freed the m.m. of the right turbinate from the septum, leaving as much as possible on the septum which almost completely covered the perforation.

When evacuated two months after receiving, both wounds were well filled in, drainage being entirely through the nose on the left side, and mostly through the nose on the right. The right external wound, however, was still filling in.

This case as you can see was a very serious one, both from the extensive destruction and from the involvement of both eyes. It was the eyesight, which was the primary thing to save or improve, once the man was out of danger from shock and infection.

What the final outcome will be I do not know, but I did feel well satisfied with him when he left. Owing to the fact that the injury entered the bone without destroying many of the soft parts of the cheek, I believe he will be free from any disfiguring scars, from contraction; however, the right eye will continue to retract down and in for some time. That will be in the hands of the reconstruction surgeon.

Case III. Private T.

First seen, October 19, 1918, having received multiple shrapnel wounds on October 10th. All wounds had cleared up, except the one he was sent to nose clinic for at this time.

Examination showed triangular 1 by  $1\frac{1}{2}$  cm. opening at inner border of left eyebrow, which was discharging muco purulent material. Opening passed back into the ethmoid labyrinth and upward into frontal sinus. With porcelain pointed probe I could not detect the foreign body. Probe from below in ethmoids could be touched by probe through wound. X-ray located the foreign body in the ethmoid mass. Repeated attempts to locate foreign body with probes and remove through wound opening or through nares, failed even with fluoroscope, because instruments for operating ethmoids were unobtainable. The case was treated by irrigating through opening and spraying with D. C. T. after enlarging opening into nose in region of frontal duct. The discharge disappeared rapidly and the external wound began to fill in. I kept this open\* with difficulty for some time (two weeks) when I let it close. There was no inflammation or discharge in the nose from the region of the ethmoid or frontal. The scar was invisible in the hair line.



This patient was under observation for nearly two months after the armistice, reporting twice a week from the convalescent camp where he was being held; and there was no recurrence of inflammation, so I let the foreign body be, even after I received the proper instruments to work with. I explained to him his condition, told him to remember it if he ever had trouble afterwards.

#### Case IV. Corporal D.

Shrapnel through left side of nose just anterior to inner canthus of left eye. Report of operation in evacuation hospital, where a counter-opening in corresponding position right side made but foreign body not found. A through and through gauze drain had been inserted.

X-Ray examination showed foreign body about one cm. below inner  $\frac{1}{2}$  of right orbit in maxillary bone, but near surface.

Under local anaesthetic the foreign body was located through incision on right side, and was dissected and removed. Foreign body 1 by 1 by  $\frac{3}{4}$  cm. ragged piece of metal. A large piece of frontal process of maxillary bone was found fractured and loose, but was left in place for contour. A small opening into right antrum was found after foreign body removed. Blood and mucopurulent material washed out of antrum.

Both right and left openings were sprayed with D. C. T., and then a gauze drain saturated with D. C. T. inserted in each side, after placing rubber tissue between septum and wall of nose, inside.

The after treatment consisted in letting the wounds of both sides fill in, keeping down granulation between the septum and lateral wall of the nose, and washing out the right antrum by means of a probe puncture. The antrum cleared up in a few days. Recovery was uneventful; the two small scars left were scarcely noticeable, appearing like the marks of "pince-nez" glasses. The loose piece of frontal process of the right maxillary was retained and healed in place leaving a scarcely palpable bump.

In concluding this paper I wish to mention several points that have impressed me in regard to sinus work of this nature.

In the first place the matter of waiting. In several cases where sinuses were involved in a wound the tendency was to operate, clean it up, trim it, do something. We found that more often than not, irrigating with borax solution or Dakin's, spraying with D. C. T. and waiting a few days, the operative procedure was made much easier by the cleaner field, and less inflammatory condition of the structures. This does not in any way mean that where existing complications indicate immediate operation, that operation should be put off. Furthermore, in one case shown here, and one other case, the case healed up without its being necessary to operate, the bodies undoubtedly becoming encysted.

Another thing in these cases is the tendency to do too much, to remove too much tissue. The cases are acutely infected but the radical removal of much tissue is not necessary. This is especially

true of small pieces of bone, often loose, which may be needed for contour and if left in place aid in the ultimate result. Good drainage from a sinus of this nature usually does not mean the large openings made in the case of chronic diseases.

I have spoken of Dakin's solution in connection with this work. I was afraid to use it at first, owing to its irritating effect on the mucous membranes of the nose and throat. However, we found that we could get good results in those cases when there was a good deal of macerated tissue and discharge, by using it for about two days at the start, and then, when irrigation was still necessary changing to borax solution. The infection appeared to be curtailed by this procedure. If there were any signs of irritation of the mucous membranes we stopped Dakin's immediately. This irritation usually appeared on the third or fourth day, and was manifest by a grayish haziness of the surface, with a suggestion of red, deeper than normal, underneath.

Dichloramine T, as prepared in the weaker solutions for nose and throat, was found especially good in post-operative conditions, especially where the nose had to be packed. The gauze packing was saturated with D. C. T. and then used as a light pack. The preparation being in oil makes the pack easily removable. The beauty of the D. C. T. is that it retains its potency for many hours longer than Dakin's, and is less irritating to the nose. Used as a spray on post-operative surfaces we felt that it was exceptionally effective.

The difficulty in finding foreign bodies in the nose is known to all who have had to search for a pledgelet of cotton, or some other article lost in the cavity. The locating of pieces of shrapnel is so much the harder, being sometimes in a small cell or tucked away imbedded in the wall. We found that for pieces of metal the porcelain pointed probes were a great aid. These probes give a different grating feeling when touching metal than when touching denuded bone. I mention this although well known to many.

### THE EXAMINATION AND CLASSIFICATION OF AVIATORS WITH SPECIAL REFERENCE TO THE EFFECTS OF HIGH ALTITUDES.\*

By J. F. GRANT, Captain M. C., U. S. A.

#### OUTLINE.

- Part 1. Introduction (slides).
  - (a) General nature of the so-called Re-breather Test (slide 1).
  - (b) Origin and History.
- Part 2. The Physiology of Rebreathing and Aviation.
  - (a) Adaptive changes due to oxygen want.
  - (b) The special problem of the Aviator.
- Part 3. Blood Pressure and Pulse Rate.
  - (a) Technique and relation to oxygen want.
- Part 4. Reaction of the Cardio-Vascular System to low oxygen.
  - (a) Cardio-Vascular compensation for oxygen want.
  - (b) Failure to compensate.

\* Read before the Los Angeles Medical Society, April 24, 1919.

## Part 5. Psychological Tests.

- (a) Purpose, technique and relation to Re-breathing test.
- (b) Motor performance important, sign degree of inefficiency under oxygen want.

## Part 6. Ophthalmological Tests.

- (a) Nature, Purpose and Technique.
- (b) Two types.

## Part 7. Typical Records (slides).

## Part 8. Summary.

- (a) Value of the test and estimate of its relation to the future practice of medicine.

## PART 2.

*Physiology of Rebreathing and Aviation.*

Physiological observations of men and animals living at high altitudes show that the following definite changes under reduced oxygen take place in the organism, namely:

1. An increase in the percentage and total amount of haemoglobin in the blood of the body and a redistribution of the red corpuscles in the body.
2. A fall in the lung alveolar carbon dioxide pressure and a corresponding rise in the alveolar oxygen pressure.
3. A rise in the arterial blood oxygen pressure.
4. An increase in the rate of blood flow.

These adaptive changes clearly assure a more adequate supply of oxygen to the tissues. The order in which these adaptive reactions occur in men who passively ascend mountains by railway trains or automobiles are, first, the increase in breathing, and then, more slowly and progressively, the changes in blood and blood flow. The adaptive changes take place more rapidly during the first two or three days spent at high altitudes, but are not completed for a period of several weeks. The aviator does not remain at high altitudes long enough to benefit from slow adaptive physiological changes, therefore, his body must be capable of making rapid compensatory changes which will provide the oxygen needed by the tissues. He must be able to bear abrupt and great changes in atmospheric pressure. Without the occurrence of some one or more of these adaptive physiological responses to provide for his oxygen needs as he ascends, his life and aeroplane become more and more jeopardized as he continues his ascent. That the body can and does respond to the demands for oxygen during rapid ascents has been proven by laboratory experiments and the experience of aviators and balloonists. The physiological responses that are definite are, increased ventilation of the lungs and a more rapid blood flow. It has been clearly established that the essential cause of the adaptive changes within the body when at high altitudes is the lack of oxygen which is due to the rarefaction of air that occurs as altitude increases.

The fact that there is oxygen want at high altitudes suggested that any mechanism that would permit the breathing of a reduced amount of oxygen could be used to test the ability of men to withstand the high altitudes.

The Henderson Rebreathing Apparatus has been perfected for such tests. During the tests the subject breathes the air in the tank. He sits with a

clip placed on the nose and a comfortably adjusted mouthpiece in the mouth, which is suitably connected by means of inch rubber tubing with light automatic valves. He inhales the air through the respiratory valve and exhales through the expiratory valve into a cartridge containing an absorbent for carbon dioxide, namely, sodium hydroxide in cake form. The exhaled air is thus freed from carbon dioxide as it is returned to the tank. A spirometer compensates for changes in volume and writes a record of the respiration upon the revolving drum of a kymograph. By this arrangement the subject continues to rebreathe the air in the tank, from which he gradually absorbs oxygen. As the percentage of oxygen decreases, the subject, in effect physiologically, is slowly ascending to higher altitudes. The volume of the air rebreathed is sufficient to require between 25 and 30 minutes to lower the amount of oxygen to 8 or 7 per cent., which is equivalent to altitudes of 25,000 to 28,000 feet.

Throughout the rebreathing experiments physiological, psychological, ophthalmological and clinical observations are made on the subject of the test. By the physiologist, the rate and per minute volume of respiration (by means of the Larsen recorder), pulse frequency, systolic and diastolic arterial pressures are studied for each candidate tested, and have been found to give valuable information as to when he first responds to the reduction in oxygen and as to the efficiency of his compensatory reactions. Some men are sensitive to oxygen want and compensate in their breathing and the circulation of the blood so that they endure as low as 6% oxygen, the air at the beginning of the test being room air and containing 21% oxygen. Others fail to compensate in one or both of these mechanisms or compensate inadequately and therefore cannot endure so low an oxygen per cent.

## PART 3.

All gradations between failure to compensate and adequate compensation down to 6% of oxygen have been found among the men examined under the low oxygen of the rebreathing tests. From the data obtained during the rebreathing test, it becomes possible to determine both the general condition of the subject and his circulatory response to low oxygen percentage. The systolic and diastolic blood pressures are taken by means of a Tycos Sphygmomanometer and sleeved Bowle Stethoscope, the stethoscope being placed over the brachial artery above the elbow of the left arm. The diastolic reading is made at the transition point from the clear, thumping sounds in the third stage to the fourth stage of dulled muffled sounds. The preliminary examination blood pressure and pulse rate readings are determined: (1) After reclining five minutes, (2) on standing, (3) after standard exercise, and (4) two minutes after exercise. The standard exercise consists of placing the right foot on a chair and raising to the standing position on the chair five times. Failure of the systolic blood pressure and the pulse rate to increase upon standing and after exercise usually indicates staleness. Aviators with a systolic blood pressure of 138 or above upon standing or two minutes after the exer-



cise have the readings taken on at least two different days before they are given the rebreathing test, as such blood pressure makes altitude in excess of 8000 feet unsafe. Every advantage is given the flier so that he may be his normal self physically when he takes the rebreathing test. Immediately before the test three so-called normal blood pressure and pulse rate readings are taken while the subject sits at the machine with nose clip and mouthpiece in place. After rebreathing is begun the pulse rate is counted every minute and the arterial pressures determined every other minute until the 18th minute, after which they are taken every minute until the end of the experiment. The pulse rate is counted in the interval between 20 and 40 seconds and recorded as taken on the half minute. The systolic and diastolic pressures are determined in the interval between 45 and 15 seconds and recorded as having been taken on the minute. When the "Run" is completed or terminated three more readings are taken as soon as possible to determine the time required for recovery.

#### PART 4.

##### *Reaction of the Cardio-Vascular System to Low Oxygen.*

In compensating for  $O_2$  deficiency we notice, first: as soon as the blood begins to carry less oxygen, an increase of respiration is noticed; second: there is an increase of blood flow which is accomplished either by a peripheral relaxation of the arterioles to allow more blood to pass, hence there must be an increase in the amount of blood coming from the heart; the latter is accomplished either by an increase in pulse rate or by an increased volume-output beat. When circumstances calling for a compensation involving heart strain arise, certain hearts will respond with necessary effort even to their own detriment, while others will give up the task at once and allow physical inefficiency to result. The condition is partly one of heart muscle and general physical tone, and partly of the quickness and efficiency of the nervous reaction which govern the vital functions. The same principle applies to the whole body—to the personality as well as the heart alone. At one extreme is the OPTIMUM TYPE OF REACTION: Those who compensate fully to very great altitudes, retaining their efficiency and yet doing this in so accurate and economical a fashion that there is little or no evidence of circulatory strain. When the break comes (above 25,000 feet in low pressure tank, at about 5.5 per cent. of  $O_2$  on the rebreather) it comes with great suddenness; from almost full efficiency there is a quick lapse into unconsciousness, but still no circulatory collapse. There is no loss of general muscular tone; the subject sits with eyes open, stylus held firmly in hand, color full, though of course cyanotic; pulse full and regular, systolic and diastolic pressure maintained. Recovery is almost instantaneous and is complete. The subject usually refuses to believe that he has not been conscious and efficient throughout. We must attribute this unconsciousness to the direct action of low oxygen on cortical centers while the circulation is still in order. Quite different is the

picture when circulatory failure has occurred; cardiac dilation, sudden collapse of muscular tone, ashy pallor, cold sweat, complete loss of muscular tone so that the subject always falls from the chair. Recovery is slow and unsatisfactory. It is often an hour before the man is himself again. Circulatory collapse may be seen at any part of that test, depending on the amount of strain preceding it, and usually comes most unexpectedly. The increase in the frequency of the pulse rate for the majority of men who have acted well has varied between 20 and 40 per minute at almost 8 per cent. of oxygen; an acceleration of more than 50 is regarded as excessive.

The degree of acceleration is ordinarily slight until the oxygen has fallen to between 13 and 9 per cent. From these on down the acceleration occurs rapidly. The rise in systolic pressure usually is not more than 20 mm.; a greater rise is considered excessive. The diastolic pressure fall, when it occurs, is either a slow controlled drop or of the rapid fainting type which is often spoken of as a break in the circulation.

#### PART 5.

##### *Psychological Tests.*

The purpose of the psychological tests is to reveal the reactor's mental condition from minute to minute as he ascends from the ground to his maximum altitude. This is interpreted in terms of his attention and his motor reactions. Three tasks are assigned to him. Two rows of electric lights on the table before him, flash at intervals of four seconds, to each one of which he responds by touching a brass contact button with an electric stylus held in his right hand, lighting a green light if properly done, and a red one if he misses. With the same hand he also controls an ammeter, keeping the pointer at a designated mark. As his third task he is required to control the speed of a light fan motor by means of a pedal operated by his foot. The frequency of the reactions are controlled by the psychologist (who sits directly in front of the reactor) and are so adjusted as to keep the reactor busy without hurrying him. This serves to keep his mind off his breathing and off himself, and reveals his attention and motor capacities from minute to minute of the test. It also tends to lower the emotional disturbances caused in some cases by fear of the apparatus, fear of fainting, fear of making a poor run or whatnot.

When a run begins the reactor establishes his own norms—that is, during the first 3 to 7 minutes on the machine, his natural and characteristic methods of responding under normal oxygen supply are noted and recorded. The cases thus far run have shown marked individual differences; some men are normally accurate, steady, composed, alert, rapid and active; others are inaccurate, excitable, jerky, slow in mental or motor reaction. A record is made of his responses for each minute. As the run progresses it is the special duty of the psychologist to detect and record the point at which the reactor's normal responses become impaired because of oxygen want. There is considerable variation among various aviators, but statistics compiled from a large number of records show that the first effects appear near the 15th minute, and the total

motor or attention inefficiency near the 23rd minute when breathing 52 liters of air. In occasional cases a reactor may show practically no discernable lowering of efficiency whatsoever up to the very point of collapse. Such cases may faint before they can be taken out of the chair unless observed very closely.

In the psychological record the reactor's responses

are, for convenience, classified under two heads, namely, attention responses and motor responses. In the case of some aviators the motor control breaks several minutes before the control of the attention. In others the opposite is true, and in some the break of both comes at once. As soon as either attention or motor responses deteriorate to a certain number of errors per minute or frac-





tion thereof, he is taken off the machine by the psychologist.

The three tasks of the test correspond somewhat to those incident to driving an airship, but are not exact duplicates. An exact duplication of the tasks of practice of the men tested, would vitiate the results. By choosing wholly new tasks the practice effects from driving a ship is eliminated.

### *Psychological Instructions for the Test.*

#### **READ CAREFULLY.**

You have three things to do:

##### **1. Lights.**

When a light flashes, touch with the stylus the top of the corresponding button, before the light goes out. Do not touch the washer.

##### **2. Ammeter.**

Watch the ammeter and by adjusting the slide of the rheostat, using the right hand, and keep the ammeter at the designated mark.

##### **3. Motor.**

Keep the motor at a low speed by maintaining the proper positions of the pedal. When the motor speeds up, push the pedal from whichever position in which it is (heel down or toe down) into the opposite and leave it in the new position until the speed again increases.

#### **NOTES.**

(a) The lights are of the first importance—i. e., if a light appears when you are reacting (or about to react) to the ammeter hand, react to the lights first then go back to the rheostat.

(b) Operate the pedal when the motor speeds up regardless of what is being done with the hand.

(c) When you touch with the stylus a contact button corresponding to a light, the movement of the hand and arm should be a free one (neither arm nor hand should touch table, rheostat or board). The hand may at other times rest on the slide of the rheostat.

(d) Do your work with ACCURACY, NEATNESS, PROMPTNESS, and do not bang, slam or jab.

Selecting target in wrong column.

Wrong direction on the dial.

Wrong shift of the pedal.

Two of the symptoms and repeatedly.  
In certain cases, exaggeration of **one**.

Two of the symptoms.  
In certain cases, exaggeration of **one**.

Inefficiency. Inability to control any of the three tasks. The reactor sometimes stares at the lights without making any attempt to touch the target; or merely irrelevant touches, completely disregarding L and N. Sometimes he develops severe tremors or jerks which make it impossible to work. Occasionally a reactor develops unique symptoms at this point.

Breakdown. Reactor ceases to work and begins to collapse at this point. This comes very soon after O, but is qualitatively a much more serious condition.

Reactor "taken off." Air or oxygen given him.

#### **ADDITIONAL SYMPTOMS.**

Tremor of the hand.

Jerkiness of the hand.

Swaying or droopiness of the head.

Taps button more than once.

Rests hand on fingers while touching button.

Keeps stylus on button after making touch.

Normally the work proceeds until definite inefficiency is reached. At this the psychologist must signal sharply to the clinical observer that the limit is reached, in order that the reactor may immediately be given air. A delay of a minute beyond this point may result in the collapse of the reactor.

#### **SYMBOLS AND THEIR SIGNIFICANCE.**

First significant effect on voluntary co-ordination.

Fumbling; clumsy; inaccuracy in touching targets.

Groping; approaching target with corrective movements.

Increased effort or force in applying stylus to targets.

Decreased effort or force in applying stylus to targets.

Impulsive or uncontrolled movements.

Slowing of reactive movements.

Speeding of reactive movements.

First significant effects on attention.

Distraction from lights; neglects lights.

Neglects lights for voltmeter.

Reactor delays initiating stylus movements so long that he fails to light check lamp.

Reactor delays so long that he touches the target after light has gone out.

Reactor starts movement after light has gone out.

Reactor makes no attempt to initiate light reaction.

Distraction from the dial; neglects to note and adjust the position of the index hand.

Distraction from the noise; neglects to control the speed of the motor.

Confusion between rows of lamps; but finally touches the right target.

Selecting target in wrong row.

#### *Ophthalmological Tests.*

The preliminary examination of the applicant's eyes is a check upon those who have given the 609 form of examination, and as there are about sixty examining boards scattered over the country, many applicants have been qualified who should have been turned down. This occurs sometimes through carelessness or friendship for the applicant and occasionally to the fact that the applicant deliberately deceives the examiner by his answers when the muscle tests are made.

The requirements of a flier from an ophthalmological standpoint are as follows:

**VISION.** 20/20 or better in both eyes tested separately. Normal Color, Field and Stereoscopic Sense. Muscle imbalance must not be over 2° Hyperphoria, 4° Exophoria, and 6° Esophoria. Pupillary reaction—direct and consensual. Accommodation—normal. All men disqualified who have any inter-ocular disease even if vision is 20/20. Near point of accommodation as to age, by a Prince Rule, near point of convergence in like manner. The latter is an objective test, as you can see the eye slip out when the black spot doubles. Field of Binocular Fixation is tested by a hand Perimeter as it is important that the aviator be able to turn the eyes as far as possible in various directions, without turning his head and without seeing double. If a man has contracted binocular fixation, it certainly would impair his efficiency, whether observing, fighting

or flying. Prism duction power is taken in all cases of muscle unbalance. The preliminary examination is always carefully done. After doing this work for about one year, my personal experience has been that there are only two classes of cases disqualified by the rebreathing test. i. e. Where the applicant has 2° Hyperphoria with 3 or 4° Exophoria. 2. Convergent insufficiency with divergent excess that is abduction of 8 or 9° with abduction of 7 or 8° where we know the abduction of a ratio of 3-1 of abduction. A fall of 20 mm. in Accommodation or Convergence does not warrant disqualification but a fall or 30 or 40 does, as the applicant would have diplopia at high altitudes.

No. 155—H. F. D. K. Cadet; Age 25 years 10 months.

This is almost a record run for low percentage reached, and preservation of efficiency practically unimpaired until the very last. Pulse rather high from the start as is often the case in subjects who compensate particularly well, and both pulse and systolic pressure show some psychic influence at the start. During the course of the test there is a typical moderate rise in the pulse and systolic pressure and a gradual tendency downward of the diastolic pressure. Respiration shows a healthy progressive increase. No suggestion of circulatory exhaustion. Rated "AA," a particularly good subject.

No. 50—E. O. T. 2nd. Lieut. Pilot; Age 31 years 8 months.

In good health but out of training, and twenty pounds overweight. This chart almost total failure to compensate. There is very little change in pulse or blood pressure, and the respiratory reaction is deficient. For this reason, there is an early appearance of inefficiency as shown by psychological characters, and he is completely inefficient above 9°. Since there is no circulatory reaction there is no evidence of strain. Class "C" becomes inefficient at a relatively low altitude.

No. —F. S. D. Cadet; Age 25 years 5 months.

An unusually bad record. Systolic pressure very high and at the end rises to 210. Diastolic shows marked fatigue though the oxygen percentage reached is not very low. Pulse rather high at the start, shows very little acceleration later, and at 9% begins to fall rapidly. The heart sounds become roughened, suggesting a valvular lesion, which seems extremely probable from the blood pressure. Should be studied further; test should be repeated. On the showing of the chart given the rating should not be better than "D."

No. 352—R. P. E. Cadet; Age 22 years 7 months. Preliminary blood pressures: Reclining—134; Standing—142; After exercise—160; Two minutes later—134.

During the test has a high and gradually increasing systolic pressure. Diastolic comes down steeply after 20 minutes, though never out of control. Pulse and respiration normal. Marked psychological effects soon after diastolic pressure begins to fall. High blood pressure with signs of fatigue put the candidate in class "C," in spite of the fact of his reaching a fairly low percentage before the actual break.

No. 144—L. R. S. Cadet; Age 20 years 2 months. Is decidedly stale, hates to go up in the air at all. Feels tired and depressed and is discontented with the service at the present time. Certain complications at home are on his mind.

This chart is typical of a man in poor physical and mental condition. He fainted rather suddenly at about 13%. Previous to this he had shown little compensatory response. The blood pressure too low from the start, pulse rising slightly and

respiration hardly at all affected. This man might be expected to faint at any time during a flight irrespective of elevation. No rating given but for the time being is unfit to fly at all. Withdrawn from flying and recommendation for furlough.

No. 110—R. S. Cadet; Age 35 years 11 months.

This chart is of a type which is not uncommon among older subjects, and must be interpreted either as decreased flexibility of the arteries or less effective vaso-motor control. It emphasizes the fact shown by experience that the best age for flying is the early twenties—a man of 36 has already begun to grow old. Preliminary blood pressures: Reclining—124; Standing—132; After exercise—142; Two minutes later—124. During the test the systolic pressure rises at the start and remains about 160. As often happens when the systolic is high, there is not a very marked rise in the pulse. There is no evidence of circulatory fatigue and he reaches low oxygen percentage with excellent command of his faculties. His present condition is first class but it is not likely that he would remain in condition long if he runs such a blood pressure when he flies. Class "B."

No. 217—D. R. Cadet; Age 20 years 6 months.

There was a roughening of the first heart sound heard before the test. No demonstrable enlargement, second sounds equal. During the test a definite systolic murmur developed and the pulmonary sound was accentuated. There was no doubt of the diagnosis of mitral insufficiency well compensated. The chart is typical of most cases of valvular lesions. The pulse is high throughout the test. The systolic pressure is high and uniform. Diastolic pressure begins to fall between 9% and 10% but is in control at all times. Respiration shows rather a marked response. Efficiency is well preserved, the psychological rate being "A." This is accomplished at the expense of marked overwork of the heart. Although this is well borne at the present time the presumption is that the subject would soon show the effects of wear, and permanent damage to the heart might easily result. Class "D."

No. 63—J. E. S. Cadet; Age 21 years 1 month.

Left hospital three days ago when he was laid up with influenza for a week. Feeling fairly well today though not up to his usual form. The first chart is typical of a man out of condition; rather high systolic pressure, psychic in both pulse and pressure, followed by a sudden faint at about 8%. In this the diastolic pressure fell to practically zero; the systolic pressure and pulse broke sharply as may be seen by the slow recovery after the experiment was terminated. He was tested again two weeks later and made a very good run with the exception of a rather high blood pressure. In this test he was not completely inefficient when taken off at 5.5%. After two weeks he was given a third test which entitles him to a "AA" rating. The systolic pressure stays below 140, there is no break in diastolic, and there is a moderate healthy rise in pulse. This case illustrates the very serious effects of temporary indisposition.

No. 123—W. B. R. Candidate; Age 23 years 2 months.

Suggestions of presystolic murmur at apex found before the test. During the test became more marked and a systolic murmur developed. Systolic pressure high from the start and steadily increased. Diastolic remained low. Note the very marked increase in respiration indicating great discomfort in breathing. Became inefficient at a rather high oxygen percentage. This chart is characteristic of the way in which many valvular heart cases respond to the test. He was not carried far enough to get the circulatory collapse which would almost certainly have happened as a result of the high blood pressure and pulse. Class "D."



## Book Reviews

**Anatomical Diagrams.** By James M. Dunlop. 4th ed. New York: Macmillan Company. 1919.

The author gives several hundred diagrams showing the contours of the body in various postures, with the bones and muscles drawn in. The plates explain the relation between the surface and the underlying parts in a satisfactory manner. The book should be of value not only to the artist, but to surgeons, othopedists and gymnasium instructors.

L. E.

**De l'Orthopedie instrumentale.** By Gabriel Bidou. 132 pp. Illustrated. Paris. 1919.

This little book gives in a compass of 132 pages a view of the mechanical principles underlying the art of orthopedic brace making. It is truly French in its simplicity and clearness. The orthopedist and brace-maker will read it with interest and profit; the general practitioner will derive from it an insight into what may be demanded of a brace-maker and what may not.

L. E.

**General Principles of Therapeutics.** By Francis H. McCrudden, S. B., M. D. Boston: Gregory, 1917. Pp. Price \$1.50.

The author's 'object in writing this book is given in his preface, as follows: "The need of an elementary text-book must be apparent to anyone who has attempted to give instruction in the general principles of therapeutics. There are reference books dealing with the details of therapeutics, but there is no book which establishes a point of view regarding the many and confusing details of treatment such that these details may be contemplated, not as a vast number of empirical and unrelated elements, but as mutually dependent parts of a whole; a book that treats therapeutics as a science, as a branch of applied physiology." The book outlines the best methods of treatment of diseases of the heart, the kidneys, the vessels, respiration, the blood, the gastro-intestinal tract, the general metabolism, and other chronic diseases.

The author's object, we believe, has been attained, and we can heartily recommend his book.

R. B.

**Atlas of Operative Gynecology.** By Barton C. Hirst. 292 pages, illustrated. Philadelphia and London: Lippincott, 1919.

The book is more than the title implies. It is a treatise on gynecological operations. The descriptions on the different operations are clear and the illustrations show the steps of each operation in its most essential stages.

The author gives in each instance the technic of the one method of operative procedure which he, in his long career as operator and teacher, has found best adapted to get the desired results. The book is splendidly gotten up; magnificent print; fine illustrations, though somewhat schematic.

To the gynecological operations proper are added caesarean section and pubiotomy, distinctly obstetrical operations. The propriety of this addition may be questioned especially when some gynecological operations and operations often performed while doing gynecological work are omitted. Such operations as resection of the ovaries, sterilization, plastic work on the tubes, implantation of uterers in the bladder, union of severed ureters, nephrectomy, and appendectomy are omitted but should be included.

H. J. K.

**Surgical Clinics of Chicago.** Volume 3, Number 6. (December, 1919.) 215 pages, 63 illustrations. Published bi-monthly. Philadelphia and London: W. B. Saunders Company. 1919. Price per year, \$10.

A. D. Bevan: Chronic lung abscess with fistula. X-ray diagnosis of gall-stones. Fibroma of large intestine. D. A. Orth: Management of neglected carcinoma of breast. E. A. Printy: Cholelithiasis with chronic empyema of gall-bladder. D. N. Eisendrath and Maurice L. Goodkind: Subacute pancreatitis. A. T. Ochsner: Transgastric cauterization of crater ulcer on posterior wall of stomach. A. A. Strauss: Surgical treatment of gastric ulcer with new method of pyloroplasty. Excision of duodenal ulcer. Carl Beck: Old sinus from hip disease treated by skin sliding. Diverticulum of urinary bladder in inguinal hernia. Gangrenous hernia of bladder and intestine. J. R. Harger: Acute hyperplasia of thyroid with dyspnea. Kellogg Speed: Elephantiasis nostras. V. C. David: Incontinence of rectal sphincter. Rectovaginal fistula. Dr. Gatewood: Lacerated wound of buttock. Golder McWhorter: Osteomyelitis with variation in growth of femur following separation of distal epiphysis. B. F. Davis: Fracture dislocation of astragalus. W. T. Harsha: Acromegaly. T. J. Watkins: Amenorrhea and sterility due to functional endocrine disturbances. E. L. Moorhead: Multiple uterine fibroids. Epigastric hernia. Gunshot wound of buttock. W. J. Woolston and W. B. White: Report of 1000 patients operated on for tubal infection. Gustav Kolischer and J. S. Eisendraedt: Lesions of female urethra. H. L. Kretschmer: Diagnosis of ureteral calculi.

**Surgical Clinics of Chicago.** Volume 3, Number 5 (October, 1919). Octavo 258 pp. Illustrated. Philadelphia and London: W. B. Saunders Company. 1919. Price, per year, \$10.

D. N. Eisendrath: Congenital cystic disease of kidney. Consideration of tumors of kidney in general. A. D. Bevan: Abdominal tumors. Abscess of pancreas. Case of ulcerating carcinoma of breast. A. D. Bevan and J. C. Gill: Ossifying enchondroma of brain. Kellogg Speed: Duodenal ulcer. A. J. Ochsner: Technic of partial gastrectomy. Gastrostomy for carcinoma of cardia and lower esophagus. H. A. Potts: Non-union or fibrous union of fracture of jaw. Malunion after fracture of jaw. Correction of deformity following loss of upper lip and anterior portion of upper jaw. Plastic operation restoring the lower eyelid, making the insertion of an artificial eye possible. Apparatus for making tracings of X-Ray plates. A. H. Montgomery: Gunshot fractures of innominate bone. Paul Oliver: Crutch palsy. Fracture of sixth cervical vertebra. Forward dislocation of atlas on axis. Silent caries of spine. Dr. Gatewood: Dislocation of outer end of clavicle. Enchondroma of the hand. E. L. Moorhead: Exophthalmic goitre. Removal of right lobe and isthmus. Fracture of femur in boy five years of age. Open treatment following failure of non-operative methods. C. L. McWhorter: Acute obstructive appendicitis. T. J. Watkins: High Rectocele. H. L. Kretschmer: Carcinoma of bladder. Diagnosis and treatment of bladder stone—Litholapaxy. R. H. Herbst: Carcinoma of prostate. Nephrolithiasis. Hypertrophy of prostate gland in a case of probable Hodgkin's disease. Carey Culbertson: Ovarian cyst and chronic pyosalpinx. E. L. Cornell: Demonstration of obstetric cases with discussion of points in technic. B. F. Davis: Fracture of the os calcis.

**Industrial Medicine and Surgery.** By Harry E. Mock, M. D., F. A. C. S., Assistant Professor of Industrial Medicine and Surgery at Rush Medical College. Octavo volume of 846 pages with 210 illustrations. Philadelphia and London: W. B. Saunders Company. 1919. Cloth, \$10.00 net.

It is impossible to do justice to Mock's excellent and most timely book within the limits of a short review. His work proves him eminently fit for the task he set for himself when he undertook to crystallize in a single volume the enormous mass of scattered facts and data that recent years have brought forth in industrial medicine and surgery.

The book shows the results of painstaking labor in collecting and digesting widely dispersed statistics and experiences. More than this—it gives the author's personal opinions gotten from years of energetic and admirably systematized work in teaching and practicing industrial medicine.

It is impossible to give an adequate oversight over the contents of this volume. It gives in detail plans and schemes of organization and systematization of industrial welfare in its medical, social, economic and financial aspects. It considers the hygiene, medical supervision and care and the social welfare of the healthy employee as well as provisions for treatment of the sick one. It contains admirable chapters on the most important disabilities—tuberculosis, hernia, the neuroses, etc. It makes a plea for the examination and re-examination of every employee, for group study in industrial medicine, and for a well-trained part-time staff, rather than the old job-holding "Company Doctor." It gives detailed plans for the carrying out of the measures for which it pleads.

The book has sown a virgin field. It will live through many editions and see many changes as Mock's teachings bear fruit.

It can be heartily recommended to surgeons of large institutions and industries, and no less to employers interested in health and welfare of their labor.

L. E.

**Human Infection Carriers.** By Charles E. Simon. 250 pages. Philadelphia and New York: Lea & Febiger. 1919. Price, \$2.25.

In preventive medicine, the carrier problem has the first claims on recognition, as it is the latent or persistent human carrier who is immediately responsible for the recrudescence of infection, whether in endemic or explosive form. Our knowledge of the carrier status is primarily the result of bacteriological research and as a rule only through the application of laboratory methods the carriers as seeds for further infection and epidemic are detected and brought under proper control. The book of Simon is written from the standpoint of the laboratory worker, detecting convalescent or contact carriers, but throughout the text attention is directed to the class of carriers which are either in fair health or not obviously diseased. The importance of these carriers should be proclaimed with unremitting insistence, because they are not sufficiently unwell to be restricted in their habits and occupations and are apt to pass unheeded unless subjected to bacteriological investigations. The treatise enhances a similar publication of Ledingham and Arkwright (The carrier problem in infectious diseases. Longman & Co.) which appeared in 1912, but it also summarizes many recent contributions to the problem of the pneumococcus and influenza carrier, and can therefore be with benefit consulted by the general practitioner and health officer. The diseases treated from the carrier point of view are cholera, diptheria,

plague, typhoid and paratyphoid fever, epidemic meningitis, bacillary dysentery, acute poliomyelitis, pneumococcus pneumonia, streptococcus infections and influenza. Each chapter contains a fairly well selected bibliography. Many valuable observations made during the war on dysentery carriers by Fletscher, on meningococcus carriers by Gordon, and the broad field of protozoan and insect carriers deserve consideration in the next editions. An analysis of the clinical and surgical aspect of the various types of carriers would undoubtedly be exceedingly valuable.

The Appendix, dealing with the important state laws, municipal ordinances, federal inter-state regulations applicable to the carrier problem, demonstrate how inadequately many states are provided with a public health machinery to protect their communities from the ever-growing menace of carriers.

K. F. M.

## Correspondence

The following letter is copied from the *Pacific Printer and Publisher* and speaks for itself, as did the editorial to which it refers:

### KICKERS AND WORKERS

San Francisco, February 4, 1919.

Editor, The Pacific Printer:—

The following clipping culled from a recent number of the *California State Medical Journal* is so good, so true, and so apropos of conditions existing in our own Printers Board of Trade (among a small but noisy minority) that I think it is well worth reproducing in *The Pacific Printer*.

If you can find space for it, I urge you to run it, and ask the reader to insert "Printers Board of Trade" wherever Medical Society appears in the article. Mayhap it will tend to awaken some of our "chronic kickers" to a realization of the fact that the man who serves an organization in an official capacity is himself making a great sacrifice—for the benefit of "the other fellow."

Cordially yours,

TWIN PEAKS PRINTER.

## County Societies

### ALAMEDA COUNTY

The regular monthly meeting of the staff of the Samuel Merritt Hospital was held February 2, 1920.

Dr. A. C. Siefert read a paper entitled "Roentgen Diagnosis of Diseases of the Lungs and Pleura." Some instructive plates were also exhibited.

Dr. Harry Alderson of Stanford University discussed diseases of the skin.

The regular monthly meeting of the Alameda County Medical Society was held at the Public Health Center January 19. The evening's program was devoted to Pediatrics.

Dr. W. A. Wood read a paper on "The Nervous Child."

Dr. Ethel Walker read a paper on "Experiences in Children's Work in Great Britain During the War."

A paper on "Infantile Scurvy" was presented by Dr. Clifford D. Sweet.

The Alameda County Society has subscribed to life membership in the Lane Library.



### Personals

Dr. Alvin Powell was married to Miss Josephine Miller January 16, 1920.

The following physicians have been or are now suffering from an attack of influenza: Dr. W. A. Clark, Dr. H. Bell, Dr. E. G. Simons, Dr. H. Koford.

### FRESNO COUNTY

The January meeting of the Fresno County Medical Society was held in the University Club rooms in Fresno City January 6.

The attendance was large, in as much as several matters of importance were to come before the society. The first being the election of officers and the following members were elected for the ensuing year: President, J. H. Pettis; First Vice-President, Guy Manson; Second Vice-President, Geo. H. Sciaroni; Secretary, C. O. Mitchell; Assistant Secretary, G. W. Walker; Treasurer, Union National Bank. L. R. Wilson was elected the new member of the board of governors. J. R. Walker was chosen as delegate to the State Convention. K. Stanniford was elected alternate delegate.

The recently elected new members are L. F. Luckie, T. F. Bell, F. B. Sheldon, D. Divanovich.

Dr. G. H. Hare then read a report of the Library committee and the amount of work in the way of new volumes added and journals bound was a revelation to the society. This work is to be continued by Dr. W. W. Cross.

The newly elected president then took the chair and introduced the speaker of the evening, Dr. John F. McKenna, Veterinarian, who delivered a very interesting paper on Rabies. The discussion called forth was lively.

The last and most interesting feature of the program was that prepared for Dr. Geo. H. Aiken. The stage had been nicely prepared and on the arrival of Dr. Aiken one of his old friends and coworkers arose and in eloquent language brought forth charges that were startling to the members who did not know the man about whom they were said. As Dr. Aiken, who has grown gray for these many years in the service of his fellow man, arose a bit staggered at the audacity of the proceedings, to defend himself, he was presented with a beautiful watch, which was the Society's way of expressing the honor and esteem in which the oldest, best loved and most honored member is held by his brother practitioners.

Dr. Aiken expressed his thanks to the society, saying that this his 75th birthday would be the most memorable of his life.

Dr. Geo. H. Sciaroni has left for Pittsburgh, Pa., where he is to study Radium Emanations. He will also visit Baltimore and New York.

Dr. Guy Manson has gone to Johns Hopkins for a six months' post graduate course in surgery.

Dr. Madden of Sanger has gone to Philadelphia to study eye under DeSweinitz. Dr. Madden will locate in Fresno upon his return.

A special meeting of the Fresno County Medical Society was held at the University Club Rooms Sunday evening, January 25, for the purpose of presenting to the public the prevalence, extent, and necessary measures to combat the present epidemic of acute respiratory infections.

At this meeting, the resolutions, following, were adopted by the Society and the instructions were given that the same should be transmitted to the Fresno City Board of Health for conveyance by them to the public through the agency of the press.

Whereas, An epidemic of acute respiratory infections is now existing in Fresno and vicinity; now, therefore, be it resolved:

1. As regards wearing the proper face masks, this committee can only recommend its enforcement;

2. Some measure be found making it compulsory for each individual physician to enforce isolation and quarantine regulations immediately after determining upon a diagnosis of influenza or acute respiratory infection; and to promptly report the case and his action taken to the proper Health Authorities;

3. All schools, theaters, churches, and other places of public gathering be closed;

4. All matters pertaining to the handling of foodstuffs for use in public places be made the matter of special investigation by a committee to be appointed by the Board of Health for specific action toward betterment;

5. The necessity for the establishment of hospital facilities be urged upon the proper administrative authorities for immediate provision;

6. The public be fully informed as to the existing conditions, the seriousness of these illnesses, and the necessity for hearty co-operation.

The discussion following the presentation of the above resolutions was most heated. A member of the City Board of Health went so far as to say that the present situation was due to cosmic disturbances and therefore all suggestions useless.

### LOS ANGELES COUNTY

The Los Angeles County Medical Association Meeting, January 8, 1920, Friday Morning Club.

Dr. Rae Smith, the president, opened the meeting at the usual time.

Dr. Oscar Reiss presented the subject of "Infant Welfare Work in Los Angeles," describing in detail the organization of the welfare department, and presented a detailed study of 602 infants, particularly as to their feeding history.

A graphic chart pointed out in a clear manner the comparative monthly gain in weight, the difference in morbidity and mortality figures of the bottle fed infant, the infant breast fed for less than three months, and the infant breast fed for a longer period than three months. The chief conclusions were:

1. The infant breast fed three months or longer, not only weighs more than any other class of infant at the end of the first year, but has had a much lower morbidity incidence and mortality rate.

2. The average physician does not seem to appreciate the fact that breast milk is the sole adequate food of the infant and that no other food should be substituted until every effort has been made to maintain maternal nursing.

3. The average physician is too ready to substitute an artificial food, and often the formula for which he allows the patent baby food manufacturer to furnish the mother.

4. The welfare station occupies the position of an educational center where the mothers may learn how to properly feed and care for their infants.

Dr. C. E. Carter, in his discussion, accentuated the necessity of stirring up a greater interest in breast feeding. Also pointing out the special advantages of breast milk.

Dr. A. J. Scott, Jr., reviewed the history of infant welfare work in Los Angeles, pointing out the great strides made during the past year, with special reference to the fact that the welfare stations were being used for teaching purposes.

### Symposium on Tubercular Preventoria.

At the meeting of the County Medical Association held January 8, symposium on Tuberculous Preventoria, the first paper was by Dr. Charles

C. Browning on "What are Tuberculous Preventoria," and he outlined briefly the origin and history of this type of institution and how the name was originated by Dr. S. A. Knopf of New York City a number of years ago. He mentioned the type of Preventoria that we have in the State of California in Marin County and the work that they were doing there. He was followed by Dr. A. J. Scott, Jr., who gave an intimate account of "Farmingdale, N. J., Preventorium." The location of the institution on 200 acres of beautiful farming land, and the handling of an average of 200 children per day, the taking in of only children past one year except in exceptional cases where the infant under one year was not tuberculous. The pre-requisites for entrance being, First, a case of tuberculosis in the family; second, unhygienic family surroundings; third, a case of incipient tuberculosis; fourth, a positive Von Pirquet.

He was followed by Dr. Marcia Patrick, who described the preventorium camps which for the last three summers have been conducted for anemic and tuberculous children in Los Angeles and its vicinity. The discussion was opened by Dr. W. Jarvis Barlow who emphasized the need for more of such institutions in the state, followed by Dr. Montague Cleaves who spoke of the work that was being done in the city schools of Los Angeles for the prevention of postural deformities. Dr. Pomeroy, County Health Officer, spoke of the need of these institutions in the county in the form of local units.

The Los Angeles County Medical Association meeting of January 15 took place in the Friday Morning Club hall at 8 p. m.

In the absence of the president, Dr. Rae Smith, Dr. John V. Barrow, the vice-president, presided.

The first subject was: "Differential Diagnosis of Hyperthyroidism," by E. H. Schneider, M. D.

The author mentions the frequent occurrence of goiter with or without symptoms of hyperthyroidism, in conjunction with other diseases.

Hyperthyroidism most commonly confused with neurasthenia, neuro-circulatory asthenia, and a toxemia, especially tuberculosis.

Kendall's thyroxin has demonstrated that hyperthyroidism is the clinical syndrome resulting from excessive metabolism.

Estimation of the patient's basal metabolic rate is of greatest importance in diagnosis as well as prognosis.

He reports a case of pulmonary tuberculosis that had been diagnosed hyperthyroidism; operated upon by another surgeon and when the patient failed to be relieved, the attending physician was contemplating the removal of more gland. Diagnosis based upon the presence of nervousness, tachycardia and tremor are not sufficient.

Many patients with a history of myocarditis coming on after the 35th year, have chronic hyperthyroidism due to an adenomatous goiter.

Neurasthenic patients frequently complain of pressure in the throat and must be carefully differentiated from hyperthyroidism, particularly when a small nontoxic goiter is present.

A differential blood count, the blood sugar test and the injection of epinephrin are also aids in the differential diagnosis of hyperthyroidism.

Discussions by Drs. A. B. Cooke, R. Cummins, C. P. Thomas, R. B. Hill, E. C. Moore, Chas. Lockwood, B. Oettinger.

#### Concerning the Wassermann Reaction as the Therapeutic Index for Syphilis. DR. BERNARD OETTINGER

This reaction was regarded solely diagnostic in character by its discoverers, Wassermann, Neisser and Bruch. Nevertheless, beginning with

the time that Plaut made note that antiluetic treatment frequently changed a positive to a negative phase, a dictum has been evolved in the profession that herein lies the therapeutic index for syphilis. Unprejudiced reading of the literature shows this tradition based upon a postulate only. This is especially true of late syphilis data. We know that in the so-called quaternary stage (paresis, tabes dorsalis) a positive reaction is practically unchangeable in the former, that in tertiary syphilis the Wassermann reaction may remain positive despite sustained treatment, that the reaction becoming negative may later again show positive, that a seemingly obstinate positive after prolonged treatment may later be replaced by a negative reaction without further treatment, that a negative may so remain or become positive after treatment, and finally that an individual with no symptoms may experience dire effects from vigorous antisyphilitic treatment instituted solely upon the basis of a positive reading (gangrene requiring amputation, fatal exfoliative dermatitis). It is more just to the syphilitic patient to base treatment upon clinical aspects of his case than upon a thumb rule of Wassermann findings. This thought is emphasized by the fact that meningovascular syphilis of the cerebrum rarely gives a positive Wassermann (Head and Fearnside) so that under these circumstances in the presence of symptoms not specifically characteristic, dependence upon laboratory results may convey false security or result distinctly in a wrong therapeutic lead. In answer to the question "What would you do in the case of a clinically well patient who showed a four plus Wassermann?" Dr. Oettinger replied, "I would leave the patient alone and thus permit him to continue doing well. On the other hand clinical watchfulness in respect to symptom development remains *sine qua non*."

#### "Neurological Indications for and Against Operation for Injury of Spine and Skull."

J. T. FISHER

Among other interesting statements, Dr. Fisher said that a crushed spine opens up the question as to immediate operation. A compression fracture of the body of one or more vertebrae often follows the impact of falls on either buttocks or head, where the force is applied in the axis of the spinal column. Paralysis rarely follows from injury to the nerve structure at the point of fracture. A radiogram distinguishes them from a sprain of the back.

Injury from high velocity missiles on the bones of the spine may occasion haemorrhage and softening at points far removed from point of impact. All cases of fracture dislocation or dislocation alone, if the cord has not been pinched, require simply fixation of the spine. Experience shows that it is the upper fragments of the injured spine displaced forward which crush the cord between the lowest arch of the displaced fragment and the body of the vertebra below. The X-ray shows that this forward displacement can be overcome by fixation of the spinal column in hyper-extension. Cutting down on the spine and wiring does little good when difficulties arise in maintaining extension.

When cord is crushed, operation offers no relief except where it is possible to prevent slipping of the fragments by fixation. In partial pinch of the cord, Caminectomy is of no avail. If cord has been injured and shows improvement with retrogression of power, a radiographic picture may determine compression of the cord either by a tumor or more likely a callus.

The vertebral arches may be driven down upon the cord, compressing it by bony spicules. Such cases, like a depressed fracture of the skull, demand immediate operation. Crepitus is of no



value as it is found where there is a fracture of the spinous processes only and is absent with a break of the arch.

Concussion is a functional condition producing vaso-motor disturbance and loss of function, as a blow on the chin may produce concussion without contusion. Contusion is a pathological change, such as pin-point hemorrhages so tiny that they cannot be seen. When a concussion lasts an hour, it is a more serious affair. Edema may be a feature. The general sign is a deepening unconsciousness and a rising blood pressure. An ice cap does no good, but the head should be raised. Watch optic disc for increased pressure as an indication for operation. Rigid pupils with a rising temperature signifies destruction of central tissue. Lumbar puncture only gives temporary relief for about eight hours. With fracture of the base decompressed, 70% die. The cause was not hemorrhage, shock or sepsis, but rather oedema from contusion.

Eye grounds and spinal puncture determines the finding. Give the brain an opportunity to expand itself.

#### Innominate Society

- "Spinal Anaesthesia," Harry T. Cooke, M. D.  
 "Emetine in Typhoid," John V. Barrow, M. D.  
 "Early Medical Histories of 100 cases of Malignancy," Norman Williams, M. D.

#### Symposium Society

##### Symposium on "Disease of Thyroid"

1. Diagnosis by Dr. R. S. Cummings.
2. Pathology by Dr. Robert Hill.
3. Treatment by Dr. E. C. Moore.

#### Los Angeles Obstetrical Society

1. Nitrous Oxid and Oxygen Analgesia and Anesthesia in Obstetrics.—Dr. R. F. Hastreiter; by invitation.
2. Frequent Mistakes Made During the Third Stage of Labor.—Dr. D. A. Thieme.
3. Post Mortem Caesarean Section with the Report of Two Cases.—Dr. John C. Irwin.

#### Harbor Branch Banquet.

Dr. and Mrs. William Day Moore, Drs. Clara M. and L. L. Rinehart, Dr. and Mrs. F. W. Reynold, Dr. and Mrs. W. E. Guidinger attended the annual meeting and banquet of the Harbor Branch of the Los Angeles Medical Society, held Friday in Hotel Virginia, Long Beach.

The principal address of the evening was given by Dr. Percy of Galesburg, Ill., who chose "Medicine of the Future" as his subject. Doctors Moore and Reynolds gave short talks. Dr. Moore has been recently elected president of the Association. Dr. J. S. Gwaltney of San Pedro being the retiring vice-president. About sixty Long Beach physicians are members.

#### Dr. Gladys Patric now Mrs. Chahovitch.

The marriage of Dr. Gladys Patric, formerly of Los Angeles, and Milan Chahovitch, celebrated in Ochrid, Serbia, November 30, has just been announced in this city.

Mrs. Chahovitch left here two years ago for overseas, where she was placed in charge of a tubercular hospital in France. It was during her service there that she was decorated by the French government for her brave work. Then, leaving the hospital base, she volunteered in the Red Cross unit which had for its goal—Serbia.

In the meantime—Milan Chahovitch, a young Serbian, was wounded and invalided home. The young officer, who could not return to the front, was appointed secretary to the young American woman physician, whose work with the Red Cross had assumed great proportions and concurrent responsibility.

A few months later the wedding occurred and the young couple are spending their honeymoon in the region of Ochrid, but are anticipating very shortly a trip to this city, where they will be

the guests of Mrs. Chahovitch's sister, Mrs. J. N. Scott of La Canada.

Mrs. Chahovitch was graduated from the College of Physicians and Surgeons in this city and had resided here for a number of years prior to obtaining her degree.

#### Personals.

Dr. Burns Stoddard Chaffee has opened offices in Long Beach. Practice limited to surgery. Suite 509 Marine Bank Bldg.

Dr. W. H. Mayne has returned. Practice limited to Genito-Urinary Diseases. 917 Brockman Bldg., Los Angeles.

Dr. Thomas W. O'Reilly has returned from military service and has opened his X-ray Laboratory at 305 I. N. Van Nuys Bldg., Los Angeles.

Dr. Niel C. Trew returned from foreign service and will limit practice to anesthetics. R. F. D. S. Box 186, Los Angeles.

This item of interest to medical profession of Los Angeles County appeared in the Examiner, January 20:

U. S. C. Gets Body of Scientist for Study.

In accordance with one of the strangest wills ever made in Los Angeles, the body of Dr. Frederick W. Sanders, noted scientist and writer, who died at Thermal Wednesday, was yesterday turned over to the University of California and placed in one of the anatomical departments at Sixteenth and Los Angeles streets.

By the terms of the will, which has not yet been filed, the body is placed in immediate charge of Dr. J. Walter Reeves, professor of anatomy and physiology in the university, and will be used for scientific research purposes.

#### Defying Quarantine.

Mr. and Mrs. Frank E. King of Linda Vista pleaded guilty in police court to violation of the city quarantine ordinance. It was alleged that, while diphtheria existed in their home and the house was placarded, Mrs. King went to Los Angeles and Mr. King left the premises every day. They were given sentences of ten days each in jail, which were suspended with strict warning regarding the future.

#### Miscellaneous.

Salvage Department for Hospital of Children—712 Maple Ave., Phone 61203, will receive anything of no value to the sender, but serviceable to others.

The late Mrs. Elizabeth Yocum Stevens began the work for the Red Cross during the war. Mrs. Mabel Frankenfield is now in charge of the Hospital Department. Her report shows a profit of \$1400 a month. Clothes, rags, papers, etc., are acceptable.

#### Report of Deaths, by the Chairman of the Necrology Committee, Dr. Wm. Wenzlick.

##### In Memoriam.

1912-1913.

Henry Sayne Orme, A. B., M. D., Nov. 29, 1912.  
 Ralph S. Lavenson, M. D., July 4, 1913.  
 Edmund L. B. Godfrey, A. M., M. D., Dec. 17, 1913.

1914.

Alonzo French Huntoon, M. D., Jan. 12.  
 Abram Hostetter, M. D., Jan. 18.  
 Joseph Silas Baer, M. D., Jan. 19.  
 William H. Parker, M. D., March 18.  
 Chas. Byron Nichols, M. D., April 16.  
 Edmond Maynard Cohen, M. D., Aug. 3.  
 John Richard Colburn, M. D., Oct. 27.  
 Geo. W. Lasher, M. D., Dec. 4.

1915.

Iay S. Mehrav, M. D., March 5.  
 Francis Alvin Weir, M. D., April 15.  
 Frank Neall Robinson, M. D., May 24.  
 Archibald Robert Brown, M. D., June 11.  
 Chas. Warren Evans, M. D., June 14.  
 Frederick Thompson Bicknell, M. D., July 6.  
 Geo. W. Peck, M. D., Dec. 13.

Rose Talbott Bullard, M. D., Dec. 22.

1916.

John Evan Jenkins, M.D., Jan. 7.  
 Elbert Wing, A.B., M.D., May 4.  
 Andrea Porter Wilson, M.D., July 20.

1917.

Clyde Jason Elmer, M.D., Feb. 1.  
 Chas. Henry Whitman, M.D., June 14.  
 Peter Gregory Cotter, M.D., June 16.  
 Elizabeth Ann Follansbee, M.D., Aug. 22.  
 John Adams Colliver, A.B., M.D., Aug. 22.  
 Thomas Elmer Grubbs, M.D., Aug. 24.  
 Clair Warren Murphy, A.B., M.D., Nov. 24.  
 Theodore Gawn Finley, B.S., M.D., Dec. 14.

1918.

Frank W. Thomas, A.B., M.D., Jan. 12.  
 Edward Arbo Tromwald, Ph.C., M.D., Feb. 17.  
 Henry Backman Stehman, A.M., M.D., Feb. 17.  
 James William Shaul, M.D., Feb. 21.  
 Chas. Goodrich Shipman, M.D., April 9.  
 Lieut. Edward Treadway, A.B., M.D., May 19.  
 William Sumner Clark, M.D., June 4.  
 John Miller Stephens, A.B., M.D., July 9.  
 Wm. Bradford Bullard, M.D., Sept. 23.  
 Chas. G. Dawley, M.D., Oct. 9.  
 Nellie S. Hayes, M.D., Oct. 11.  
 Joseph William Stone, M.D., Oct. 16.  
 Edgar Mosher Allen, M.D., Oct. 21.  
 Chesley Lighboune Evans, M.D., Oct. 25.  
 Lieut. Wayne Pierre Hanson, M.D., Oct. 26.  
 Capt. Harvey L. Thorpe, M.D., Los Angeles, Nov. 4.  
 Lieut. Carl Adolph Breitling, M.D., Nov. 5.  
 Lieut. Col. Wm. Emmet Purviance, M.D., Dec. 26.

Deaths for the year 1919.

Asst. Surg. Harry Virgil Bogue, M.D., Jan. 9.  
 Charles Frederick Miller, M.D., July 22.  
 Frederick J. Kruell, M.D., July 29.  
 Thomas J. McCoy, M.D., Sept. 30.  
 Cynthia A. Skinner, M.D., Oct. 3.  
 Ernest Eugene Roberts, M.D., Oct. 11.  
 Charles W. Fish, M.D., Nov. 25.

Summary.

Accidents, 7.  
 Tuberculosis, 7.  
 Influenza, 7.  
 Pneumonia, 7.  
 Cardiac Diseases, 5.  
 Cerebral Hemorrhages, 4.  
 Angina Pectoris, 3.  
 Carcinoma, 3.  
 Appendicitis, 2.  
 Septicaemia, 2.

In six years total deaths were 54 out of a membership of about 600, increasing to about 900 by January, 1920.

#### MENDOCINO COUNTY.

The yearly meeting should have been held on December 10th, 1919, at Willits but heavy rain storms visited the valleys on that day, making it impossible for most of the members to attend. The slim attendance decided to lay the yearly proceedings upon the table and to adjourn to our next regular meeting. After adjourning Dr. and Mrs. Griner of Willits entertained those present, first at a banquet at Hotel Willits and later at their cozy home.

At the meeting held in the office of Dr. O. H. Beckman, Fort Bragg, on January 21st, 1920, the postponed yearly proceedings were taken up. The minutes of the last yearly meeting were approved and the secretary's yearly reports on membership and finance.

The officers elected for 1920 are President, Samuel L. Rea, M.D., Ukiah; Vice-President, Homer H. Wolfe, M.D., Albion; Secretary-Treasurer, Oswald H. Beckman, M.D., Fort Bragg; Ass't Editor, Oswald H. Beckman, M.D., Fort Bragg; Delegate, Frank M. L. Campbell, M.D., Fort Bragg; Alternate, to be appointed.

The membership report brought to light that we still have one member on active duty in the Navy, Lt. Reuben H. Hunt, M.C., U. S. N.

The meeting was capped by a very sociable lunch.

#### ORANGE COUNTY.

The regular January meeting of the Orange County Medical Society was held in the Santa Ana Library building. The Society was entertained by a paper by Dr. D. E. Royer, of Orange, entitled "The Cause of Diseases of Women." The doctor's paper provoked quite a discussion. Dr. Zaiser, Superintendent of the Orange County Hospital, invited the Society to hold their meetings regularly in the chapel where ample room and accommodation was available. The Society thanked the doctor for his kind offer and decided to meet with him in the month of February when the matter will be taken up and considered further.

The regular February meeting of the Orange County Medical Society was held in the chapel of the Orange County Hospital at Orange. Dr. Zaiser arranged the program for the meeting which was clinical in character. The program consisted of the presentation of cases and the reading of papers as follows: "Primary Carcinoma of the Liver," by Dr. C. D. Ball; "Corneal Ulcer," by Dr. G. M. Tralle; "Cataract," by Dr. C. H. Brooks; "Polio-encephalitis," by Dr. J. I. Clark; "Traumatic Epilepsy with Stereoscopic Roentgenograms Showing a Bullet Lodged in the Brain Tissue," by Dr. W. H. Wickett.

The following four physicians were elected to membership in the Society: Drs. Lane, Ashworth, Ewing and Mayes. The matter of accepting the use of the chapel of the County Hospital for further meetings was not discussed. At the close of the meeting Mrs. Zaiser and Miss Swall, Superintendent of the Hospital, served delicious refreshments.

#### SACRAMENTO COUNTY.

At the January meeting of the Sacramento Society for Medical Improvement the following officers were elected: President, Dr. W. A. Beattie; Vice-President, Dr. G. A. Briggs; Secretary and Treasurer, Dr. Harold Zimmerman. As Associate Editor of the Journal Dr. S. E. Simmons has been appointed.

#### SAN DIEGO COUNTY

The County Medical Society Bulletin appears this year in a new and much improved garb; it also makes its appearance twice a month, and is apparently paying its way from the array of legitimate advertising that appears in its pages.

A very interesting session of the Society was recently held conjointly with the bar association. After an enjoyable repast at the Hotel San Diego the evening was punctuated with eulogies, serious and comic, of the two professions, while shafts of mirth and criticism, some barbed, some velvet encased, sped swiftly back and forth. From this scene of battle emerged groups of professional men with both their sense of humor and tolerance of their fellow man thoroughly stimulated, while many a scintillating remark possibly expressed in humor left food for serious thought for many a day. All expressed the meeting of definite cultural value and hoped it might be repeated at least once a year.

The evening of January 13th featured an excellent paper by Dr. H. C. Oatman on acute dilatation of the stomach, which furnished some valuable discussion on one of the most interesting as well as one of the most alarming post-operative emergencies, by Drs. Churchill, Burger, Pickard, Clark and Oatman.

The epidemic of mild influenza which has greeted San Diego during the last few weeks seems to be definitely on the wane. The physicians have characterized the disease as of mild type, comparatively free from fatalities. Prompt action by the local health officer supplemented



by an advisory committee from the Medical Society might have had not a little to do with the rapid fall of the disease.

Dr. Martha Welpton, after a year's service in public lecture work for the Red Cross, has reopened her office in the First National Bank Building, with practice limited to gynecology and obstetrics.

Dr. Chas. W. Brown, recently of the Navy, has opened an office in the First National Bank Building, limiting his practice to ear, nose and throat.

Dr. Leon DeVille has returned to San Diego and opened an office in the Tiunken Building.

Dr. Edgar A. Frauer, after post-graduate work in G.-U., has opened an office in the First National Bank Building.

## SAN FRANCISCO COUNTY

### Society Meetings

Proceedings of the San Francisco County Medical Society

During the month of January, 1920, the following meetings were held:

**Tuesday, January 6—Section on Medicine.**

Election of Section Officers for 1920.

1. Orthopedics in relation to medicine.—E. H. Smith.

2. Infections of the female urethra.—C. B. Moore.

3. Reports and radiograms of some interesting kidney conditions.—S. A. Goldman.

**Tuesday, January 13.—General Meeting**

1. Aims of the American Legion.—Mr. J. C. Colman.

2. On stereographic radiograms, localizing by visualization of the skin. Illustrated by lantern slides.—H. D'Arcy Power.

3. Physiological effects of high altitudes with especial reference to the work of the Medical Research Laboratory, Air Service, U. S. Army.—J. L. Whitney.

**Tuesday, January 20—Section on Surgery**

**San Francisco Polyclinic Clinical Evening**

1. Tumors of the pelvis of the kidney.—W. E. Stevens.

2. Some aspects of malaria.—Bernard Kaufman.

3. Intestinal obstruction.—B. S. Stevens.

**Tuesday, January 27—Section on Eye, Ear, Nose and Throat**

1. Demonstration of cases and new methods.—Harold Fletcher, Hans Barkan and F. C. Cordes.

2. X-ray indications for mastoid operations.—H. B. Graham.

3. New eye tests for admission to the Air Service.—Percival Dolman.

Election of Section officers for 1920.

## Obituary

**HENRY KREUTZMANN**

**San Francisco**

Hamlet, . . . "yet it will come; the readiness is all."

He was born February eighth, eighteen hundred and fifty-five. He came to San Francisco in eighteen hundred and eighty-six. He died in nineteen hundred and twenty. Thus, at this time he was sixty-five years of age.

He was a learned man striving to do a great good. At no time throughout his long, useful life did he lose contrition.

His daily conduct was like unto a deep, calm lake, reflecting a tense sense of professional obligation.

It was his proud and proper boast, and our

knowledge, that of all the women he attended he never lost one in or after childbirth.

At the solemn ceremony I watched the rich and poor pass his dead face. No curiosity, common to the last look, held them. Theirs was heart-felt grief and silent gratitude for noble service rendered.

There is a book whose cover, in the very beginning of time, was made glorious by the hand work of the High Priests of Medicine. Its brazen hasp closely holds the life leaves of splendid men and we lesser ones open it and read and gain inspiration.

IT IS IN THIS BOOK WE JUSTLY PLACE THE PAGE OF HENRY KREUTZMANN

## SAN JOAQUIN COUNTY

The first regular meeting of the year 1920 of the San Joaquin County Medical Society was held in the Green Room of the Hotel Stockton on Friday evening, January 9th. Those present were: Drs. C. F. English, B. J. Powell, F. J. Conzelman, C. D. Holliger, L. Dozier, H. Smythe, L. R. Johnson, C. R. Harry, E. A. Arthur, Will Priestly, A. E. Edgerton, L. Haight, S. F. Priestly, S. E. Latta, H. E. Sanderson, Mary Taylor, J. T. Davison, R. B. Knight, W. T. McNeil and D. R. Powell, with Dr. H. B. Graham as guest and speaker of the evening.

The Committee on Admissions reported favorably on the application of W. P. Lynch of this city. Upon motion made and seconded the report of the committee was accepted and Dr. Lynch was declared a duly elected member of the society.

Dr. Arthur presented an interesting case of a cerebral hemorrhage and a hemiplegia with high blood pressure in which the most interesting thing was the complete recovery from paralysis in a short period of time.

Dr. F. J. Conzelman of the State Hospital Staff presented in a most complete and thorough way an interesting case of subcortical motor aphasia. The patient could recognize objects, could obey commands, could read and write but was dumb. There was also a right hemiplegia present. The doctor discussed from the standpoint of a differential diagnosis the possible cause for this condition and told why he felt it was due to an embolus from a valvular heart condition.

Dr. Powell spoke of an interesting case of a calculus in the submaxillary duct which was coincidental with an acute otitis media.

The paper of the evening was presented by Dr. Harrington B. Graham of San Francisco on Plastic Surgery of the Nose. The Doctor first spoke of the saddle nose type and told of the danger of paraffine injections in inexperienced hands, but stated that he had had some very successful results. He spoke of cartilage and bone transplants as the best way of building up these cases. He also spoke of the hump nose and the methods of rasping the bone and told of the single stroke refracture in the case of lateral displacement. The Doctor showed numerous photographs of various cases before and after operation which proved conclusively the benefit the patient had derived from the procedure.

After some discussion by the members present the meeting adjourned to the White Room where refreshments were served and a social hour enjoyed.

## SANTA CLARA COUNTY

At the annual meeting for the election of officers the following men were chosen:

President, Dr. Thos. L. Blanchard; first vice-president, Dr. E. F. Holbrook; second vice-

president, Dr. G. P. Hall, Sunnyvale; Third Vice-president, Dr. Robert L. Hogg, Saratoga; treasurer, Dr. H. J. B. Wright; secretary, Dr. J. L. Pritchard. Councillors-at-large: Dr. A. E. Osborne, Dr. P. A. Jordan, Dr. J. J. Miller.

At the present time the Society has a membership of over 80. A great deal of interest is being manifested toward the League for the Conservation of Public Health. Dr. D. A. Beattie was named to represent the Society at the annual meeting of the league recently held in San Francisco, and at this meeting Dr. Beattie was elected a director representing the central counties in the league.

### SANTA CRUZ COUNTY

The following have been elected officers of the Santa Cruz County Medical Society for the year 1920:

Dr. L. M. Liles, President; Dr. W. F. Cothran, First Vice-President; Dr. H. G. Watters, Second Vice-President; Dr. A. N. Nittler, Secretary-Treasurer; Dr. A. N. Nittler, Delegate; Dr. S. W. Dowling, Alternate Delegate; Dr. A. F. Cowden, Censor; Dr. W. F. Cothran, Censor; Dr. D. S. Woodard, Censor; Dr. J. C. Farmer, Corresponding Editor.

A new member was elected to the Society, Dr. T. F. Conroy, formerly of Chicago. Dr. H. E. Piper, last year of San Francisco County Medical Society and a former member of this Society, was reelected.

### TULARE COUNTY

Regular meeting of the Tulare County Medical Society was held at Hotel Johnson, Sunday evening, January 25, with Dr. W. A. Sprick of Los Angeles as the guest of the evening.

After the dinner Dr. Sprick discussed gastric ulcer from the many different angles which they present to the general practitioner, dwelling upon their amenability in a large proportion of cases, to suitable medical treatment.

In the general discussion which followed many points of great interest were made clear. Dr. S. A. Barber of Porterville, who has been at Lane hospital with a fractured patella for the past six weeks, has resumed his practice.

Dr. F. V. Emery, for the past five years a practitioner at Porterville, has been appointed assistant physician at the Sonoma State Home, Eldridge.

Dr. C. L. Morris, recently returned from service in France, has located at Porterville.

Kings-Tulare County Tubercular hospital at Springville was filled to its capacity five months after opening.

## Notice

### AMERICAN DIETETIC ASSOCIATION

The next annual meeting of the American Dietetic Association will be held in New York City, October 22, 23, 25 and 26, 1920. Plans under consideration now promise to make this one of the most worth while meetings of interest to all groups of people whose special work is allied with nutrition and dietetics.

## Medicine Before The Bench

In this column will appear with appropriate comment, from month to month, court decisions and proceedings affecting the various phases of medical practice, the conduct of hospitals and the enforcement of public health laws.

### DAMAGES FOR ALLEGED MALPRACTICE

A judgment of the Superior Court of San Francisco for \$2000.00 against Dr. W. C. Eidenmiller, Jr., for alleged improper surgical and medical treatment administered to Otto Scherer was reversed by the First Appellate District Court Division Two, in a decision handed down by Judge Langdon, concurred in by Judges Brittain and Nourse.

In this action brought by plaintiff to recover damages for alleged improper surgical and medical treatment administered to plaintiff by a practicing physician, of a gunshot wound in his elbow, the evidence fails to establish negligence on the part of said physician not taking X-ray pictures of said wound at any time during a period of about 3 months and 10 days after an operation thereon, where said wound during said time showed signs of infection and was discharging pus, and the only expert testimony offered by plaintiff showed it was not improper to not take X-ray pictures where such condition existed.

The testimony offered in the lower court is discussed at length and the Appellate Court decides that "it falls far short of the proof required to establish negligence."

The respondent argues that because the defendant stated to the plaintiff about August 20th that he would take him to Dr. Stoddard for the second operation, because Dr. Stoddard had had more experience with such cases and had just returned from the war zone, and that he, defendant, had not had a case like this one before, this amounts to an admission of incompetency and unskillfulness upon the part of the defendant. We think these statements are susceptible of no such construction. As pointed out before, Dr. Coffey testified that in an experience covering 18,000 fracture cases he had never seen a case like this one. The defendant testified that he had had considerable experience in fracture cases, but had never had one precisely like this. The fact that Dr. Stoddard was admitted to be more experienced and skilled along this particular line does not imply that the defendant did not possess that reasonable degree of learning and skill possessed by others of his profession in his locality. This question is discussed in the case of *Houghton v. Dickson*, supra, where it is said that the fact that some other physician may have discovered a dislocation in an arm does not show a want of ordinary care in the defendant physician, since the physician who made the discovery may have been a man who, by reason of superior learning and advantages, possessed far more than ordinary skill in his profession. The court in that case quotes from the case of *James v. Crockett*, 34 N. B., 540, as follows: "A surgeon does not undertake to perform a cure, nor does he undertake to use the highest possible degree of skill, as there may be persons of higher education and greater advantages than himself. . . . Surely it will not be contended that the measure of ordinary skill is the amount of skill and experience acquired by physicians who have been working for some time in the war zone and handling a constant succession of difficult and unusual cases."

"Though the determination of the question herein discussed cuts the foundation from under the judgment in this case, it is pertinent to remark also that the record contains no evidence that it would have been possible or likely by any course of treatment, no matter how skilful, to have restored to the plaintiff the full use of his arm after an injury such as occurred here. The fact that a patient does not make a complete recovery raises no presumption of the absence of proper skill and attention upon the part of the attending physician. (*Haire v. Reese*, 7 Phila. (Pa.), 138, quoted in *Houghton v. Dickson*, supra.)



## Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

On application the Collector of Internal Revenue will furnish a physician with a permit to prescribe distilled spirits (alcohol, whisky, etc.) and will furnish him with the necessary forms. Unless a physician has such a permit, it is unlawful for him to prescribe distilled spirits or to have any in his office. The permit allows the physician to purchase in any calendar year 6 quarts of distilled spirits (alcohol, whisky, etc.) for office use, but not for personal use.

The Council of Chemistry and Pharmacy of the A. M. A. calls itself a clearing house for pharmaceutical preparations. It seems better to call it Tribunal, for it judges all preparations submitted to it strictly on merit without fear or favor, and its decisions are not influenced by prestige, wealth, threats or ridicule. It is not infallible and it must not, therefore, be assumed that all of the preparations accepted for N. N. R. will absolutely do what they pretend to do in all cases, or that preparations rejected are, necessarily, dangerous, fraudulent or even without some clinical use. However, the physician may feel perfectly safe in at least trying preparations that have been accepted and he should be extremely careful before prescribing those that have been rejected.

A study of the prescription files in any reputable pharmacy will show an alarming number of prescriptions calling for preparations that have been condemned and again condemned by the Council of the A. M. A. and these prescriptions are frequently written by men of standing and reputation whose knowledge of medicine and ethics are above reproach. It seems that this should not be so after almost a quarter of a century of good work by the Council, but it will be so until all medical colleges and especially our best medical colleges insist that their graduates have a working knowledge of the principal drugs and preparations of the U. S. P. and N. F. and know how to write prescriptions for them.

Approval by the Council of some standard drug of a particular make such for instance as Barbitol (Jones) or Benzyl Benzoate (Smith) does not indicate that the drug of this make is superior to all others, but simply that it comes up to the standard set by the Council.

The Treasury Department has modified the denaturation which must be added to alcohol before it can be sold to the public. It is no longer permissible to sell alcohol with 4/10 per cent. of formaldehyde. Every hobo soon learned how to neutralize the formaldehyde and stores which had been selling five gallons of alcohol a month suddenly sold five barrels or more. Alcohol can still be sold with two per cent. formaldehyde and two per cent. glycerine added. If this formaldehyde is neutralized the resulting product will be too active for comfort. However, the two per cent. formaldehyde makes it unfit for rubbing. One per cent. carbolic acid is no longer permitted. Alcohol may now be sold containing 1 to 2000 mercury bichloride. This is also unfit for rubbing. The best formula now in use is probably that requiring the addition of one per cent. liquor cresolis comp. The physician can prescribe one pint of alcohol under the same conditions as one pint of whisky.

Manufacturers of the so-called "soluble Iod-

ides" claim that their preparations are better than U. S. P. tincture of iodine in that the iodine is not precipitated on mixing with water and that the potassium iodide, in the tincture of iodine causes irritation. Careful examination has shown that some of these preparations contain hydriodic acid which is more irritant than potassium iodide and that if the iodine content is taken into account, these preparations are more irritant than either U. S. P. tincture of iodine or Lugol's Solution. U. S. P. tincture of iodine is miscible with water so that there is absolutely no reason for the existence of these soluble iodides. Certainly no reason why the patient should pay four or five times as much for it as for U. S. P. tincture of iodine.

An examination of ipecac preparations shows that Salol coated tablets or capsules may be so poorly or lightly coated that the ipecac affects the stomach or they may be so heavily coated that they are not dissolved in the intestines. If properly made, however, they seem to work very well.

Emetin Bismuth Iodide dissolves to some extent in the stomach and sometimes causes derangement. Al Cresta Ipecac tablets which contain Ipecac Alkaloids with Fuller's Earth, do not always dissolve in the intestines so that there is apparently no absolutely reliable preparation of this kind on the market.

The Direct Sales Co. of Buffalo is a type of the concerns which seems to exist because they fear that the physician may be exploited by well known pharmaceutical houses and therefore sell him tablets, etc., for dispensing at greatly reduced figures. An examination of a number of their tablets show that they contain only a fraction of the drug indicated on the label. The physician who does his own dispensing owes it to himself and to his patients to give them what he thinks he is giving them and he should, therefore, use only preparations of reliable manufacture. All reliable manufacturers examine their products very carefully and though, occasionally something does get out which is not up to par, this rarely happens. It is well to remember that a tablet machine, a printing press and a slick detail man do not make a reliable pharmaceutical house.

Examination has been made of a number of tablets which are claimed to liberate formaldehyde in the mouth and that these, therefore, sterilize the throat. Even if formaldehyde were liberated, the quantity sufficient to sterilize the air passages would be too irritant to use.

The manufacturers of Pineoleum have issued a circular from which it appears that Dr. Chas. Lambert, President of the A. M. A., has endorsed their product. Dr. Lambert wishes it distinctly known that he has never used and, therefore, never endorsed Pineoleum. There should be some law against this kind of advertising.

Olive oil acts as a laxative only when the quantity used is so great that a portion passes through without being digested. It is indicated in some cases but contra-indicated in so many more, that care should be taken in prescribing it.

The work of Acroflavine and Proflavine is still in an experimental stage. Of 34 reports from various clinics, 25 were favorable, 7 unfavorable and 2 uncertain.

The Council has refused to admit Medinal to the N. N. R. as it is simply a sodium salt of Barbitol and therefore not essentially different from Sodium Barbitol. As it is only a sodium salt of Barbitol, the claims made for it seem unwarranted.

Pneumonia Phylacogen and various other vaccines have been used as prophylactics for in-

fluenza. The general opinion of those best qualified to judge is that vaccines and serums are of little or no use and that some of them may even be dangerous.

A committee which examined the action of various lactic ferments has come to the conclusion that while fermented milk is useful in some cases, that it is probably impossible to plant these bacillae in the intestines when they are taken in the form of tablets or suspended in water. Bacteriologists and scientists on the Committee were much more positive in this matter than the clinicians. It must be stated that many clinicians in hospital and general practice insist that the tablets or suspension are frequently efficacious.

Antimeristen (Schmidt) is apparently the first German product to be extensively advertised to the physician since the armistice. Several years ago the Council reported that the claims made for this were unwarranted and there seems no reason for changing this opinion. We shall probably again soon be flooded with German products and German literature and it is to be hoped that American physicians will be more discriminating than many have been in the past.

Luminal is a phenyl barbitol or veronal which seems to be useful in some nervous affections. The dose actually found safe in practice is 1 to 2 grains once or twice a day. Much of the literature on this article states that the dose is from 5 to 10 grains. This seems to be a dangerous dose as several cases have been reported in San Francisco and vicinity where 5 or 6 grains of luminal put the patient to sleep for 24 hours or more. This may be due to idiosyncrasy; but physicians should be careful to test their patients before ordering more than 1 to 2 grains as a dose.

## Clinical Department

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 3. October 13, 1915. Female, American. Age 8 years. No. 10094. D. E.

Complaint: "Pain in stomach."

Family History: Father, four brothers, and three sisters living and well. Mother suffers from chronic chorea. Otherwise family history entirely negative.

History: Normal birth and development. Pertussis at the age of 3 months. Mumps at the age of 3 years, and pneumonia at the age of 2½ years. Otherwise the past history, except that directly referable to the present condition, is negative.

Present Illness: The child was in excellent health until approximately 1 year before entry (at the age of 5 years) when she was suddenly taken ill with acutely reddened, tender swellings of the knees, ankles, wrists and elbows. She was confined to bed for one month, and then apparently entirely recovered, except for very slight choreiform movement which persisted for a short period. One month before entry, she suffered another similar attack, which again confined her to bed. Two days before entry severe generalized, inconstant abdominal pains became a symptom. There was no hemoptysis or epistaxis. There was very slight, if any dyspnoea, although careful questioning elicited the fact that ever since her first attack, she had been accustomed to sleeping with at least two pillows elevating her head.

At entry the temperature was 38.2, pulse 140, respirations 28.

Physical Examination: A well developed and nourished child, anaemic, slightly cyanotic, show-

ing moderate dyspnoea which becomes marked when the head is lowered. The skin shows a few petechial hemorrhages over the chest and abdomen.

Head, Eyes, Eye Muscles, Ears: Negative. There is a sero-sanguinous discharge from the right nostril. Buccal mucosa cyanotic.

Teeth: Very badly carious.

Tonsils: Much enlarged and cryptic. Moderate general cervical adenopathy.

Chest: Slightly prominent in region of lower sternum, somewhat more marked on the left.

Lungs: Negative.

Heart: Apex impulse not seen but felt 7 cm. to the left, from the mid-line in the 5th space. Beat is diffuse and not definitely localized. No thrill. Dulness extends from the mid-line to the left 9 cm. in the 6th space, 11 cm. in the 5th, 11 cm. in the 4th, 4¾ cm. in the 3rd. To the right, the dulness extends 3¾ cm. in the 2nd space, and 7 cm. in the 4th. The cardio-hepatic angle is obtuse. The sounds show a marked sinus arrhythmia but are of fair quality. A<sub>2</sub>=P<sub>2</sub>. They cannot be heard to the right of the sternum; best heard 1 cm. outside the nipple line in the left fifth space. Blowing systolic murmur heard best at the apex transmitted to axilla and back. "To-and-fro" pericardial friction rub heard at the base, fading toward apex and axilla, synchronous with systole and diastole. Radials equal, good volume.

Abdomen: Negative except for palpable non-tender liver edge 3 cm. below costal border.

The remainder of the examination was negative.

Laboratory Examinations: Von Pirquet, Wassermann in blood serum, Blood Culture, and Culture from pericardial fluid were all negative.

Blood Count: Hb. 70%, R. B. C. 4,950,000, W. B. C. 17,750. Differential: Polys 80%, Lympho 10%, Large Mono 3%.

Urine: Positive for acetone and diacetic acid. Otherwise negative.

Throat Culture: All types of cocci. No hemolytic streptococci.

X-Ray findings: "Large Pericardial Effusion."

Pericardial Puncture: Needle inserted 4 cm. from the right sternal border in the 5th space. 10 cc. of sero-sanguinous material were withdrawn for diagnosis.

Diagnosis: Rheumatic endocarditis and Pericarditis with effusion.

Discussion: During the first 48 hours several syncopal attacks occurred, but the orthopnea was so easily relieved by the sitting posture that aspiration of the pericardial sac was not deemed necessary other than for diagnostic purposes, culture, etc. The effusion, too, began to be rapidly absorbed—within three days the area of dulness was appreciably less, and the heart shadow had lessened in size in the radiograph. Her temperature fluctuated in the neighborhood of 39° for three days and then dropped to normal. The pulse, however, showed wide variations for a month, then becoming much steadier. As the fluid was absorbed the endocardial signs became much more distinct, while, after a period of three months and extra-cardial (pleuro-pericardial) systolic murmur became distinctly audible, especially at the apex. (The occurrence of pleuro-pericarditis is unquestionably very frequent, in fact usual in these cases and there is great probability that many of the signs formerly ascribed entirely to adhesive pericarditis, between the visceral and parietal layers are in reality due to this condition.) At no time was a Broadbent's sign demonstrable however. The child remained in the hospital for a period of six months, confined to bed entirely until the last three weeks of residence when she was allowed up for increasing lengths of time each day and also given graded exercises destined to



determine her cardiac capacity for work. During residence her teeth were placed in a healthy condition and one month after entry an adenotonsillectomy was performed with no ill toward effects. She suffered several attacks of acute coryza but at no time was there a reinfection of the cardia apparently. Three months after her entry her electro-cardiogram was entirely normal, and at the time of discharge, the examinations of the heart showed simply the presence of a chronic mitral regurgitation and the above mentioned pleuro-pericardial adhesions of slight degree. The pulse reaction to exercise and excitement was slight, the heart had hypertrophied but slightly, was fully compensated, and the radiograph was normal.

Medicinally, during the acute stage, aspirin was administered in 5 gr. doses every four hours. The use of the salicylates in rheumatic infections is variously regarded by different observers, many feeling that once the infection has taken place, little if any good is accomplished by their administration, and also that they are harmful from the depressant action on the myocardium. Others attribute this depression to the actual toxic influence of the infection, and therefore prescribe the drug in full doses during at least the period of greatest activity which was the plan followed in this case.

Tincture of Digitalis in tonic doses (m. III tid) was given after the first month continuously.

Pericardial puncture should be resorted to where pressure signs and symptoms are evident. Otherwise from the therapeutic standpoint it is not necessary. Opening and draining of the pericardial sac is a surgical procedure to be considered in the frankly purulent forms with many pressure signs and much toxicity.

Case No. 2 of this series demonstrates, with the present one, two very similar pictures, clinically, at the outset, but with entirely different etiology, course and outcome. Pericarditis is practically always secondary—a blood infection or one by direct extension. The former is exemplified in these two cases, the one being septicemic (staphylococic) secondary to an abscess, with sero-purulent exudate, violent toxicity, with pyemic tendencies and rapid death; the other septicemic (rheumatic, probably streptococic) secondary to an attack of acute rheumatic fever, with less toxicity, sero-sanguinous exudate which was rapidly absorbed and ultimate recovery.

The rheumatic form is probably more common, and from five to twenty-five years rheumatism is especially prone to cause pericarditis. Endocarditis is always present as is myocarditis. Upon the latter, to a very large extent, depends the course of the disease. The ultimate outcome also, in case of recovery, depends upon the extent of this myocardial damage, but also upon the amount of adhesive pericarditis which has resulted—this varies from obliteration of the pericardial cavity, with its interference in the cardiac action, to small bands or excrescences on the pericardium which cause little if any trouble.

The symptomatology is varied, but the most of the symptoms and signs are demonstrated in these two cases. Many of the attacks of pericarditis occurring in the course of other diseases, e. g., pneumonia, are undoubtedly missed entirely.

The prognosis varies with the severity of the infection and its type, as is demonstrated by the cases submitted. It is much worse in the sero-purulent forms than in the sero-fibrinous, the latter being typical of the rheumatic type of infection.

Balfour says, "Pericarditis, like other acute inflammations occurring in an otherwise healthy individual, may be expected to run a favorable course if not unduly treated."

## State Board of Medical Examiners

### COLLECTED CLIPPINGS ON MEDICAL LAW ENFORCEMENT

Lila Atherton, nurse, Los Angeles, arrested Jan. 21, 1920, by Sp. Agt. O'Connell, charged with the murder of Elsie Allen who died in the San Antonio Hospital, Uplands, from an illegal operation, alleged to have been committed by Mrs. Atherton.

L. A. Examiner, 1/2/20.

Special Agt. Castellaw reported criminal abortion charge pending against above in Superior Court, L. A., on Jan. 1, 1918.

John Lafayette Berry, whose license to practice in California was revoked by the Board of Medical Examiners at the Oct. 1919 meeting, has been granted a writ of review by Superior Judge Cabanis of S. F. who will pass on the right of the Board to revoke the license.

S. F. Examiner, 12/27/19.

The Christian League of Healing and Helpful Service was organized in Los Angeles Jan. 13, 1920, which is expected to show to the faithful and faithless alike that "the prayer of faith shall save the sick."

L. A. Examiner, 1/11/20.

Chiropractors of Alameda County incorporate "to advance the science of chiropractic and to acquire the cohesive forces necessary to establish proper professional recognition." (None of the six directors are licensed to practice in the State of California).

Oakland Tribune, 1/9/20.

The preliminary hearing of A. P. Francis of Oroville, charged with violation of the medical act was postponed to February 3rd, the defendant arguing the matter was within the jurisdiction of the Justice Court while attorney for the Board of Medical Examiners held the jurisdiction to lie in the Superior Court. Sacramento Bee, 1/23/20.

R. J. Framer and Simon Muller, chiropractors recently arrested in San Francisco for violation of the medical act were held to answer in the Superior Court by Police Judge Morris Oppenheim.

An application of Dr. Thos. F. Glass for a writ of Review, directing the Board of Medical Examiners to restore his license, revoked February 20, 1918, was denied in Judge Jackson's Court in Los Angeles, January 6, 1920. Dr. Glass advertised a tuberculosis treatment.

Los Angeles Express, 1/6/20.

H. O. Hanna, chiropractor, was acquitted of the charge of practicing without a license in Police Judge Mortimer Smith's court, Oakland, on January 22, 1920. After the verdict had been rendered three of the jurors stated they were convinced that the accused practiced without a license but they did not believe him guilty. Attorney George Gelder, former assemblyman, defended Hanna.

San Francisco Examiner, 1/24/20.

"Dr." Ottoman Zar Adusht Hanish who in 1904 worked as a printer in Salt Lake under the name of Herr Otto Hanisch was recently arrested in Chicago after a search of a year or more and returned to Los Angeles to stand trial under indictment for revolting offenses against little girls.

Los Angeles Times, 12/31/19.

A. B. Hinchley and H. A. Brown, chiropractors of Richmond, recently arrested and charged with violation of the medical act expect to make a test case as to the rights of chiropractors to practice.

Oakland Tribune, 1/21/20.

In 1916 the U. S. Supreme Court upheld the constitutionality of the California medical act, in an appeal filed by P. L. Crane, drugless practitioner of Los Angeles and argued before the Supreme Court, December 12, 1916.

"If sick and in trouble I will pray for you gratis. Unknown, Box 18015, Tribune," is an advertisement in the Oakland Tribune of January 22, 1920.

What pays for the cost of advertising if treatment by prayer is "gratis"?

# California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVIII

APRIL, 1920

No. 4

## IMPORTANT NOTICE

**Make your reservations at once with Hotel Ambassador, Santa Barbara, for the Medical Society State of California meets May 11th, 12th and 13th, 1920.**

### IMPORTANT ANNOUNCEMENT BY THE PROGRAM COMMITTEE.

The attention of the members of the State Society is called to the article appearing in another column entitled "Rules Governing Reading of Papers and Discussions at State Society Meeting." A few words of explanation regarding these rules might not be amiss. Because man is not born perfect, does not attain perfection nor has, so far as we have been able to observe, ever had perfection thrust upon him and because of variance of opinion between different individuals as to relative values and in respect to other matters, it was learned very early that certain rules and regulations are necessary in order that the business of society, and of societies, might be carried on expeditiously and harmoniously. The object of the authors of such rules and regulations, in a democracy, is to so frame the laws as to promote the greatest liberty and the greatest good to the greatest number. This also is the object of the members of the Program Committee. The rules and regulations are the result of the teachings of past experience. Three of the six rules for authors and each of the three rules for those taking part in discussions have to do with time limits. Experience has shown that only by establishing such time limits is there a possibility of putting through the program on anything like schedule time. The necessity for such regulations is entirely due to the variance of opinion between individual members as to relative values. In his

enthusiasm for his particular subject each author is inclined to overestimate the value of the topic he is to discuss and to underestimate the value of the topic chosen by another. In an endeavor to be perfectly fair to all and to complete the Society's transactions within the allotted and perfectly inelastic number of available hours, an equal amount of time is given to each member.

Rule number 4 for authors, which has to do with the presentation of a copy of his paper by each author to his Chairman before delivering his address, is due solely to a variance of opinion between individuals as to what constitutes a contract. We do not get something for nothing in this world. For everything we receive we must give something in exchange. Part of the price to be paid for the privilege of presenting a paper before the State Society is the surrender of one's paper to the Secretary of the Society for publication in the JOURNAL. Heretofore it has been the custom to hand in the paper at the conclusion of the meeting. In other words, the price was paid after the goods were delivered. It was found, however, that many failed to keep the contract and not infrequently collection of the account became impossible. This year the Committee has adopted the "pay as you enter" system and each author will be expected to present a copy of his paper to the Chairman of his Section before being accorded the privilege of the rostrum.

Rules 5 and 6 for authors have been in force for several years and need no further comment.



The Program Committee does not doubt that the majority of the members of the Society will appreciate the necessity for and cheerfully comply with the rules and regulations as laid down. They are too worldly-wise, however, not to anticipate some slight attempt at evasion of its regulations. Part of the strength of this great Republic is due to the fact that the individuals which compose its membership do not blindly follow its leaders nor unhesitatingly and literally obey all laws. For the benefit of any would-be recalcitrant who may expect a modification of the rules for his benefit, the reader is respectfully referred to the sixth chapter of the book of Daniel and the twelfth verse, particularly the last line of this verse which refers to the laws of the Medes and Persians. For the benefit of any who may not possess the aforementioned volume it may be added that the same may be found in any public library and in most homes.

#### INVITED SPEAKERS AT STATE SOCIETY MEETING.

It is becoming more and more the custom, particularly in the smaller county societies, to invite speakers from a distance to address the meetings. The attendance is better, the interest is greater, and those who cannot spend the money or the time in travel, have the privilege of meeting and hearing men who are contributing to the development of medical science and art. That which has proven good for the county units should be good for the state societies; and in fact the custom of exchanging men has grown more and more in the middle and eastern states. Probably on account of our comparative isolation from the older centers of learning, we in California have been slow to invite outsiders to our annual meetings. This year an exception is to be made, and we expect to have with us four guests, all prominent in their lines of endeavor.

Dr. N. W. Jones of Portland, probably the best known clinician in the Northwest, will discuss the end results after the removal of focal infections. This paper should be exceedingly valuable at this time when so many are removing these infections and so few are following up their patients to see what good has been done. Dr. Russell D. Carman, from the Mayo Clinic, one of the leading X-ray experts in the world to-day, will talk on the diagnosis of duodenal ulcer. He will bring with him an exhibit of interesting plates. Dr. E. C. Kendall, also of the Mayo Clinic, will tell us about the thyroid hormone and its effects on metabolism. All those who have been following with intense interest the growth of our knowledge on basal metabolism and the effect of the thyroid upon it, will welcome the opportunity of meeting this young man who, by his epoch-making discovery, has won a place among the world's leading physiologists.

#### OUIJA BOARDS AND CULT CURES.

Ordinarily we would consider it a waste of space to contradict or refer remotely to the extravagant claims made by the legion of cultists for their weird theories of healing.

One day we read the paid propaganda of chiropractors setting forth the absurdity that they lost only one patient out of every 886 afflicted with this, that, and the other malady, and the next day we find the osteopaths "in sweet vociferation out-vociferize" the claims of other cults. The ratio of loss which they admit is the mere trifle of one fourth of one per cent.

In addition to this, we have "miracle men" in California as plentiful as blackberries in June, that eclipse the chiropractors and osteopaths in staple and fancy promises, and whilst they have not yet reduced their performances to a percentage basis, they unctuously announce that "nothing is impossible with God."

Since the Kaiser dissolved partnership with the Deity numberless ones claim to be the direct representatives and distort texts from sacred books that they know naught of. During the war, when the world needed healing most, these healers and cultists were strangely silent. The statesmen of the world, those in authority responsible for the health of the fighting forces, and for all those who were sustaining the fighting forces on land and sea, would have employed these "one fourth of one percenters" if there was any sound reason to believe that they could make their boasting good.

Shakespeare said in his day, "the devil can cite scripture for his purpose," and long before Shakespeare's day and long after it, we find the citing of cures and texts invariably associated with charlatanism. A verselet from the Scripture engraved on a coin was recommended for rheumatism and biliousness. If the coin was received as alms in front of the church, and the rheumatism or biliousness was devoutly ordered to take possession of a bird, the result was invariably happy.

Pseudo-science and quackery down through the ages have offered nostrums for which great claims were made and great cures published. Sometimes these were alleged medical discoveries, at other times physical fatuities, and now and again religious phantasms. They have had and have this common characteristic made familiar by patent medicine advertisements. They offer as evidence extraordinary cures to support the extraordinary claims made for the curative value of each peculiar theory. Any attempt to examine the evidence to determine whether the cures are real or fancied, is considered by some as impertinent and others as irreligious.

Health laws and laws governing medical science have been enacted for the benefit of all the people. They are not placed on the statute books to promote private purposes or advance peculiar theories. The observance of health laws cannot be left to the option of any individual or any small clique or class of individuals.

It is incumbent, therefore, on those who by practice and profession are charged with the duty

of leading and instructing in the health affairs of the State, to be vigilant and constantly watch the tendency of new therapeutic movements and analyze the principles and scrutinize the performances of the movers.

Under scientific scrutiny prevalent miracle methods disclose all the classic features and delusions that their numberless predecessors possessed. Anyone will be highly entertained and informed by reading Dr. Cutten's "Three Thousand Years of Mental Healing" and Pettigrew's "Superstitions Connected with Medicine and Surgery."

You will find that the present supernatural operations, thruster, rubbers, harlequins, claimants extraordinary, in fact, the whole circus parade—all have very ancient prototypes, and the only difference is that the present day cultists have a steam calliope both before and after their parade.

The Ouija board has invaded their mysterious field, and is now their most formidable competitor. Delvers in deep psychic phenomena and esoteric occultism claim that the Ouija board is entitled to special consideration, and that its performances should not be passed upon by a hostile "Medical Trust."

Recently at El Cerrito, Contra Costa County, the devotees that were laying their hands on the Ouija board claimed to have performed marvelous cures. By burning the clothes and a good round sum of money in obedience to the "scientific" instructors of the Ouija board, one was cured of a severe malady that leading doctors had pronounced incurable and a little girl was saved from dying by cropping and burning her hair.

Doubtless the Scientific Society of Ouija Board Practitioners were just about to issue a fruitage and statistical report giving the character and percentage of cures together with grateful testimonies of the "well-heeled," when the officers of Contra Costa County stopped them and called in doctors who can distinguish the difference between sanity and insanity. Two of the Ouija board devotees were committed to the State hospital at Stockton, and two were sent to Napa.

The Ouija Board Society has passed resolutions condemning the "Medical Trust" and urging all those who have received benefits from Ouijapractic to write boost articles to their local newspapers, and also denounce the arbitrary methods of the "Medical Trust."

Ouijapractic is the most formidable foe that has yet joined the allied cultists in their absurd attack on an imaginary "Medical Trust."

#### DOCTOR C. A. L. REED LAUDS LEAGUE.

Doctor Charles A. L. Reed of Cincinnati, past president of the American Medical Association, Professor Emeritus of the Medical Faculty of the University of Cincinnati and prominent promoter of public health work, in an address before the Alameda County Health Center, devoted a goodly part of his address to analyzing and commending the aims and achievements of the League for the Conservation of Public Health. Dr. Reed said he had heard a great deal about this unique California organization before his arrival, but from

the time he reached Los Angeles and San Diego, until the evening of his address, he heard from so many reliable sources what the League had done, was doing, and going to do, that he was both delighted and disappointed.

We quote from the Oakland "Tribune" Dr. Reed's tribute delivered during his address, "The Public, the Medical Profession, and the New Era":

"In preaching this gospel in California I experience both disappointment and satisfaction; disappointment in finding myself engaged in the always unwelcome task of merely carrying coals to Newcastle; satisfaction in discovering that the principles for which I am contending have already here commanded recognition and are being carried out by methods and instrumentalities of highest efficiency. I look upon the California League for the Conservation of Public Health as altogether the most advanced exemplification of the policy for which I am contending and an inspiring object lesson for every other state in the union. I commend it to both the favorable consideration and most liberal financial support of every citizen of this commonwealth."

#### CHIROPRACTORS DEFY LAW.

The chiropractors have written an open letter to Governor Stephens filled with their customary blatant baldédash. If the Governor has read the chiropractic chatter, there is one paramount point that will not escape the attention of California's chief executive—that is the defiance of the law.

The chiropractors insolently and emphatically tell the Governor that "the chiropractors will never consent to come under the jurisdiction of the Medical Board."

The Board of Medical Examiners was created and established by law to regulate the examination of all applicants for license, and the practice of those licensed, to treat diseases, injuries, deformities or other physical or mental diseases of human beings. That the law is constitutional has been repeatedly declared by our courts, and that those who violate its provisions and openly defy the state authority constitute a menace to the public welfare, must be apparent to the Governor.

With the right of appeal to and review by the courts, which any one dealing with the Board has, this chiropractic clamor about "justice," "fair play," "a square deal" is really an attack on the courts. "No man e'er felt the halter draw, with good opinion of the law."

Those who lack the educational evidence to convince a competent board usually deny the allegation and defy the examination.

The chiropractors have not confined their correspondence to open letters to the Governor. They have also written some closed confidential letters. The campaign committee, in these letters urge each recipient to write letters to the newspapers "protesting against the persecution of the Medical Trust."

Lest the recipient should falter from lack of ideas and fail to write epistles to the newspapers bristling with "strong protest," advanced sheets of "Protest Writing Made Easy" are enclosed



with each letter. The admonition is given, "please do not copy the exact wording of any parts of the leaflets but change the wording so that it will be in your own language." And this anchor to windward is cast, "you might state in your letter that you have been benefited by chiropractic adjustment."

The single purpose of all this made-to-order correspondence is to show the Governor, the editors, et al., that there is a sudden, spontaneous, "popular protest." It's an old game, and was worked effectively in the days of Julius Caesar when the conspirators threw letters, written with disguised and varied chirography, over the garden wall of noble Brutus.

It is effective to-day only with a few up-sophisticated papers that are greatly impressed by small advertisements. As the Covina Citizen says, "chiropractic treats nothing, heals nothing."

#### THE LADY AND THE TIGER.

Behold how fast a cult can grow! In 1915, the College of Osteopathic Physicians and Surgeons of Los Angeles, in its catalog, stated that the osteopath knew too much about physiology to administer drugs, and advises against taking out any "of the pieces of which the human body is composed." In 1918, the mother school, almost had we said "mother church," at Kirksville, Mo., stated in its catalog, "Our science must grow and develop. . . . It is especially noteworthy that aside from anesthetics, this has not and never will include the giving of drugs." In 1919, President Vanderburgh, of the California State Osteopathic Association, stated in unequivocal terms to the writer, that osteopathy includes the giving of drugs and the use of surgery. Doubtless, some sweet day osteopathy will celebrate its adolescence by becoming indistinguishable in education, content and method, from modern scientific medicine. China has many times been conquered. Each time she has benevolently assimilated and thoroughly digested her conquerors, and pursued her way unperturbed. Osteopathy may give rise to some transient indigestion but such rapid growth as recorded above, can but end as did the Lady and the Tiger.

### Editorial Comment

Statistics of the State Board of Medical Examiners show that on October 10, 1919, there were registered in California 5,975 physicians and surgeons, 551 osteopaths, 55 naturopaths, 142 "drugless practitioners," 190 chiropodists, and 100 midwives. Of the 5,975 physicians and surgeons, 1,517, or 25.4 per cent., entered government service during the great war.

Why is it that Eddyite "heelers" charge all the trade will stand and demand material dollars in a world where all is illusion? Also why do the Eddyites tolerate no charities, or charitable enterprises? We would be interested in seeing

a certified financial statement from the "mother church" showing the derivation and distribution of all funds. Being in a condition of darkness, will some one kindly throw light on the reason for calling Eddyism Christian? Also the reason for calling it science?

Great interest centers on the recent work of Kendall on the nature of the active principle of the thyroid gland. Kendall and Osterberg (1 J. Bio. Chem., Dec., 1919, p. 265) have recently described the active principle, thyroxin, and have isolated it as a body of unit chemical constitution. It is a colorless, odorless, crystalline substance, insoluble in aqueous acid solutions. It is soluble in alkalis and forms salts both with metals and with acids. It exists in four closely related chemical forms, is not easily subject to oxidation or reduction, and in alkaline solutions gives up its iodine as hypoiodous acid. This last reaction is accelerated by sunlight, which also produces pink compounds from the colorless thyroxin molecule. The discovery and isolation and chemical identification of thyroxin represents a noteworthy advance in chemical physiology and one that is sure to eventuate in a fuller knowledge of the pathology and treatment of disorders of the thyroid gland.

#### EDDYITES WANT SICK BENEFITS

One's religious tolerance must be fixed in a peculiarly solemn setting if it resists a chuckle over the embarrassment that has befallen the Christian Scientists belonging to the teaching force of the New York City public school system. The regulations of the city board of education provide that a teacher absent from duty will not be "docked" of pay if she turns in a certificate from her physician that she was too ill to work. Now, strangely enough, the Christian Scientists on the staff want the benefit of that rule; although "Science and Health" teaches them to deny that there is any such thing as sickness in the world, yet it is far more agreeable, when pay day looms ahead, to deny the denial than to contemplate the loss of needed cash.

But the grave difficulty comes over that required certificate of a physician; the only physician known to loyal disciples of Mother Eddy is the Christian Science healer. Will, then, the board take a healer's certificate that on such and such a day an absent teacher was ill? No, says the board, it will not. If the healer is consistent, all he can certify is that the teacher had an error of mortal mind. And the board of education of the august City of New York says that if it knows itself—and it thinks it does—there is no good New York money going to be paid out to encourage errors of mortal mind. Let the Christian Scientist engage "absent treatment" and stay in her schoolroom. The strange doctrine of Mrs. Eddy has led her followers into a good many ridiculous and abashing situations but none more ludicrous, we judge, than this spectacle of so intelligent a company of the faithful industriously whipping the devil round the proverbial stump in order to obtain sick benefits for maladies and infirmities which they constantly declare not to exist.—(From "The Continent," Chicago, editorial.)

## Special Article

### Hospital Service Department

#### BOARD AND STAFF ORGANIZATION.

By W. E. MUSGRAVE, M. D., San Francisco.

(Fourth Article.)

A *Board of Arbitration*, as illustrated and briefly mentioned in the February number of the *Journal*, ought to form part of hospital organizations more often than it does. The personnel as set forth in that article should consist of a body of representative men interested in some definite way in better medicine and public health.

Such a board also oftentimes may serve a most useful purpose in safeguarding the terms of bequests, legacies and gifts intended for charitable purposes. This idea has been incorporated in one foundation and several wills recently in San Francisco, with the hope of preventing the difficulties surrounding the operation of many hospital and other endowments now in existence. In some of these, the restrictions which appeared all right at the time have, with changed conditions, become burdensome. Their execution being out of the spirit of the times defeats the real aims of the donor and makes them practically useless to the public. The nomination in the testamentary document of some *permanent*, disinterested, conservative body as a board of arbitration, with fairly liberal powers, adds to the value and usefulness of any bequest or gift.

Frequently for long periods of time a board of arbitration may have little or nothing to do in a hospital organization, but in times of crisis it may be able to guide the institution out of a dangerous situation.

The *Medical Board*, as outlined in the previous article, would be superfluous in many hospital organizations, because all of its functions may be discharged by the staff. An independent Medical Board finds its usefulness in Community Service hospitals made up of many interests, all of which must co-operate to make the hospital a success; for example, in the smaller rural hospitals, and particularly in those like county hospitals, where local politics must be reckoned with, constituting, as it does, such a large handicap against efficiency in so many places.

A board of this character also finds a useful duty under conditions, unfortunately all too frequent, where there exists a factional feeling between individuals or groups of physicians, whose harmonious action is necessary to the hospital's success, as well as to the attainment of better medicine in the community. In these instances, the medical board becomes a sort of board of arbitration for things medical.

#### STAFF ORGANIZATION.

A *Staff Organization*, whether separate from or including the duties of a medical board, is a necessary part of every good hospital organization. In fact, it is one of the three most important elements in successful organization, and at the same time it is the one most frequently neglected or poorly carried out. Less than ten per cent. of

the hospitals of California have even "paper" staff organizations, and those that have real working efficient staff organizations, carrying out both the letter and the spirit of efficient staff work, may be counted on the fingers. This is a distressing fact that must be brought home to hospital boards and to the members of our profession, and persistent and constructive efforts must be employed until every hospital has an active team-working staff, co-operating as a unit with the administration for the betterment of the institution and the care of patients.

#### TEAM WORK.

The essentials necessary to secure a co-operative team-working staff are, careful selection in appointments, arrangements for fairly frequent meetings, real sympathetic co-operation by the administration, and vision in maintaining matters of interest before the staff. Indifferent, infrequent meetings of a loosely selected and organized staff is the most disastrous situation that may happen in any hospital—disastrous alike to the staff, the patients, the institution and to the cause of better medicine. Various methods, such as clinical societies, dinners and assigned subjects for discussion, have been employed with varying degrees of success to bring staff members together. Probably the best and most successful method is, the maintenance in the hospital of a staff luncheon club, somewhat similar to those of many large business corporations. An attractive space may be set aside and provided with necessary equipments and service, including telephones, reading matter, writing facilities and an attendant. A simple, wholesome luncheon served promptly and informally during one or two hours completes the equipment and service. Some responsible member of the administrative side of the hospital should make it a point to be present every day, and all members of the staff should be invited to use their "Club," and to bring their medical friends as guests. Provision should be made for various committee meetings and for larger round table meetings of the entire staff. Incomplete records and other neglected matters brought tactfully before members in the "Club" by competent attendants may be easily cleared up without undue waste of the time of busy men. With modifications to meet special conditions, some such plan as this, under the guidance of an interested administrator, will produce surprisingly happy results in developing and maintaining a co-operative team work staff.

#### "OPEN AND CLOSED STAFFS."

One hears a great deal of discussion of the question of "*open staff*" and "*closed staff*" hospitals. There is no such thing as an "open staff" hospital. An institution of this character is a "hotel for the sick," where both the physician and the patient are guests, with the rights and privileges of guests and with no more interest, responsibility or concern regarding the management than have the guests of any other hotel.

Gossip, criticism, friction, wasted effort, accidents and inefficiency in general find most fertile soil in disorganizations of this kind, and the physi-



cian must surround his patient with influence and special nurses to secure high grade service and protection for himself, while the efforts of administrators are wasted in pacification and the time of nurses in carrying out foolish instructions that too frequently are given by Doctor X because Doctor Y uses some other method.

The successful hospital is one where there is mutual interest and mutual responsibility between all departments, both professional and administrative; where there is team work between members of the staff and between the staff and the administration, all working to give the highest type of service at the least expense in effort and money. There must be mutual acceptance of the slogan that the hospital's interests and reputation are a true reflection of the interest and standing of members of its staff, and that the success of the one is intimately bound up in the success of the other.

The furtherance of this spirit requires a mutual pledge of loyalty between the hospital and each member of its staff; a mutual agreement that records shall be kept; unnecessary surgery avoided; hazards of accidents reduced to a minimum; laboratory, X-ray and other diagnostic methods used to their greatest and most economical advantage; the simplest of successful remedies employed; methods standardized as far as feasible; nurses and employees trained in careful, efficient, economical practices; incompetency, charlatanism and cultism combated by all legitimate means; the humanities, art and idealism of medicine promulgated; and "everlasting team work" applied consistently and persistently to the prevention of disease, the education of juniors and assistants of all sorts and the sympathetic efficient care of the sick.

To be complete, a staff must have one or more members representing each specialty of medicine, including pathology and roentgenology; and the organization must be along the recognized lines of cleavage and co-ordination of these specialties. In other words, the successful, progressive staff must be able to handle well, within its own membership and within the walls of the hospital, all the complex problems of diagnosis and treatment, and unless this is possible, the use of the terms "hospital" and "staff" are both misapplied. This means, of course, such care in formation of a staff that there shall be mutual confidence and respect in judgment and integrity between members representing the various special fields of medicine.

#### IDEAL EXECUTIVE COMMITTEE.

The ideal organization of various departments, such as medicine, surgery, etc., is, to have a chief (by any title) with sufficient associates and assistants to carry on the work and give necessary instruction to juniors. In small towns in particular and in the formation of new staffs anywhere, the personal equation often makes such an arrangement difficult or impossible. Where this is so, the appointment of all members may be made with uniform title and each department may elect its own "executive chairman" at regular stated intervals. The chairmen of all departments, with the

general officers of the staff and the chief administrator of the hospital, constitute an ideal executive committee for all purposes.

#### RELATION OF STAFF AND DIRECTORS.

Failure to appreciate the correct relations of the staff to the board of directors all too frequently is a cause of friction and consequently of inefficiency in hospitals as in other health betterment organizations. The only safe position for a staff to assume is, that the directors have the final decision in all matters, just as they by custom and law must assume the final responsibility. Some who disagree with this view will point to mistakes made in armies because there the medical department is responsible to lay generals, who have the final decision in important matters. The responsibility is similar in all other technical departments and no army could succeed with authority divided. However, the wise general will follow almost without question the suggestions of his medical men. So too in civil life, safe directors, in things medical, will follow the wishes of their medical staff, whether the organization be a hospital, an industrial plant, a mercantile establishment or a transportation company.

Actually, it frequently is difficult to get a staff of medical men to agree upon policies or details, and it is wise to have a body to hold conditions in statu quo until such team work has been secured by discussion and study. In carrying out matters purely medical, the wise board of directors will concern itself principally in encouragement and expressions of appreciation. With problems involving other phases of work and requiring co-operation or the increased expenditure of funds, the directors should secure careful complete discussion and, if possible, complete agreement before allowing action to take place.

The relations between the staff and the managing director (superintendent or whatever other title is used) of a hospital also is important, and will be taken up in the next article, which will be devoted to the duties of the chief executive.

## Original Article

### ORGANIZATION OF A METABOLISM UNIT.\*

By N. W. JANNEY, M. D., Ph. D., Santa Barbara, Cal.

Specialization in clinical medicine has made it increasingly difficult to insure proper care of certain groups of cases without special organization. In surgery this necessity has been better appreciated and met than in medicine. Thus obstetric, venereal, orthopedic and gynecologic units are now usually seen in general hospitals. The Brady Urologic Institute represents a further development. Here an expert staff has been provided with a building specially constructed and equipped for its purpose, provided with every facility for the investigation and research of urinary tract diseases, the whole forming a complete unit, but representing an integral portion of the Johns

\* From the Memorial Laboratory and Clinic, Santa Barbara, California.

Hopkins Hospital, Baltimore. Special endowment has been provided for its support. The immediate success of the Brady Institute is the best proof of its usefulness and the need of other similar developments.

On the medical side progress has been less rapid. It has been but between one and two decades ago that, excepting the contagious, all manner of cases, tuberculous, nervous, and even psychoses, were to be found in a general medical ward. At present there still remains one group of medical cases for which, with very few exceptions, no adequate provision has been made nor indeed contemplated in the average general hospital. This group is the metabolic.

#### *Present Status of Study and Treatment of Metabolic Diseases.*

It is no exaggeration to state that the treatment of metabolic cases in the hands of the general physician, or even the internist, and in the average general hospital, is still frequently as crude as the science of surgery before the era of antisepsis. Various reasons may be adduced to account for this state of affairs.

Formerly the rarity of metabolic cases was advanced as a ground for little attention being paid them by the medical attending physicians and hospital authorities. This holds true no longer. Diabetes, particularly in the United States, is on the increase, due probably to the enormous per capita sugar consumption of its inhabitants. The writer well remembers that during two years spent in Friederich v. Miller's Munich clinic but a decade ago, it was a rare occurrence to find more than two diabetics among 800 medical beds. In American hospitals of half this bed capacity a like or larger number of sufferers from this disease are now usually to be found. Joslin estimates that 1 in 75 of the total population either has the disease or will develop it, therefore that there are 1,000,000 potential diabetics in the United States to-day. Recent developments in the diagnosis and treatment of nephritis has added many cases to the metabolic quota of a given hospital. Another increment is due to better recognition of various endocrine diseases with modern diagnostic methods.

Although all this is generally recognized among medical men, progress in treatment of such cases remains quite slow. This may be ascribed to the fact that there are but few physicians having a thorough training in metabolic work. Therefore, more than superficial interest is still not frequently afforded either the hungry diabetic or waterlogged nephritic.

Granting, however, sufficient professional knowledge, interest and enthusiasm on the part of the medical attendant, the relative large expenditure of time required for successful study of metabolic cases precludes their proper care by either the general practitioner or busy internist. If, however, both the requisite training and necessary time on the part of the physician are available, the metabolic case yet remains a difficult practical problem. Frequently intricate weighed diets are

absolutely necessary for successful treatment. These are often unobtainable in the usual household or the general hospital diet kitchen. Again, complicated chemical and other laboratory methods are needed for proper estimation of the patient's condition and control of treatment. Specialized laboratories become necessary which are beyond the means of the ordinary practitioner and remain, indeed, usually inadequately provided for in the general hospital. Another just criticism which may be made of the usual treatment now afforded the metabolic case, is the confusion arising from inadequate and unsystematized methods of record or laboratory, clinical, and dietary data.

Economic factors play their part in the generally unsatisfactory status of metabolic treatment. Most metabolic diseases are eminently chronic. Their proper treatment depends upon special and sometimes expensive articles of diet, as well as long series of elaborate chemical examinations. Even the middle class purse finds it difficult to meet the costs entailed. Periods of neglected treatment are therefore common. For the poor wage-earner suffering from a nutritional disease, present living conditions prove an ever greater burden. The writer has seen the diabetic poor of New York City in recent years literally die of improper food, due to their inability to provide themselves with suitable articles of diet, and to the fact that no suitable hospital provision has been made for their reception.

#### *Organization of a Metabolic Unit.*

How shall improvement be brought about in the handling of metabolic cases? Experience has taught that special provision should be made for the complex treatment indicated. It is self-evident that such cases must be collected in sufficient numbers to justify this special provision, and be placed in a separate portion of a hospital or institution *per se*. The next step would logically be to provide a specially trained clinical staff. Secondly, a diet kitchen unusually well equipped for the heavy requirements to be put upon it; and, thirdly, excellent chemical and clinical laboratories with trained workers. Should all these requirements be met, these departments must all be smoothly co-ordinated and systematized into a perfectly functioning whole, in order to secure the best results. It is obvious that considerable financial support of such a clinic is indispensable in order to enable the middle and poorer classes to benefit by this treatment.

Such an ideal metabolic unit has to the writer's knowledge not yet been developed in this country for various reasons already mentioned. There are, indeed, several research institutions where unusual excellence in certain aspects of metabolic work has been attained. However, none of these, owing to their peculiar purposes, are adapted to all classes of metabolic cases. Again, it may be fairly said that in spite of, or perhaps perforce of, the splendid scientific advances attained by the workers in such institutions, practical treatment of metabolic cases has not always been as satisfactory from the patient's own standpoint.



The purpose of the ideal metabolic clinic may be defined as the scientific study and treatment of the nutritional diseases such as diabetes, nephritis, gout, thyroid and other endocrine diseases, obesity, under-nutrition and dietetic problems. Research investigations in this field would represent a large part of its activities. Instruction to post-graduate students and dissemination of scientific knowledge to the profession would be additional aims. A further and much needed function would be the practical instruction of graduate and pupil nurses in applied dietetics.

For such an institution it is doubtful whether location in a metropolis be advisable. The problem of the treatment of chronic diseases differs greatly from that of acute ailments. Removal from the stress of life in a large city is peculiarly beneficial during the period of constructive re-education and adaptation of the chronic invalid to the conditions necessitated by his disease. An additional desideratum would be open-air existence in an ideal climate and among beautiful natural surroundings, on account of the well known effects of such factors on chronic invalidism. These features have long been recognized by European clinicians who have been aided by civic organizations and even municipalities in building up the great spa resorts, where everything conducive to the health and entertainment of the chronic invalid has been secured.

The Memorial Laboratory and Clinic of Santa Barbara, California, represents two years of organization and study with the view of establishing a metabolism unit meeting as far as possible the requirements outlined above. Through the wise provision of Dr. Nathaniel Bowditch Potter\* of New York City, founder of the clinic, sufficient funds were collected or pledged at the outset to insure a complete organization. The donors to the clinic are the Carnegie Institute for the Advancement of Teaching and a number of philanthropic individuals.

The clinic was organized first at the New York City Hospital, then transferred, practically *in toto*, to Santa Barbara, California, where it became affiliated with the Cottage Hospital of that city. During the organization period Dr. Potter sought and obtained the advice of nearly every metabolist of note in the country. This clinic in its final form is therefore to be considered the crystallization of the best thought of the profession in a practical manner. After a year's work at Santa Barbara, the success of the project was such that three philanthropic friends of the clinic gave it a permanent home, in the form of a wing-like extension of the Cottage Hospital. This was a most important step as it represented the first building known to the writer specially designed for the treatment of and research in metabolic cases. The architecture conforms to Southern California style; a commodious two-story structure with open verandas and balconies

and sun-rooms. The first floor includes, administrative, reception rooms, research library, classroom for dietetic and chemical demonstrations and instruction of diabetic patients, respiration apparatus room for basal metabolism studies, diet kitchen, chemical, clinical and bacteriological laboratories. The X-Ray department and other clinical facilities are afforded by the Cottage Hospital, with which a harmonious mutually beneficial agreement has been made. Special features provided for in this clinic are an extremely roomy and well equipped diet kitchen, with every provision for the preparation of quantitative food portions, automatic dumb-waiter for transferring the food to a special serving kitchen on the patients' floor; a room for the temporary reception of urine, stool and other specimens, pending their collection and forwarding by another special dumb-waiter direct to the laboratories. In the furnishing of the patients' floor much care was given to suppressing the stereotyped hospital sick room by the introduction of an attractive color scheme in furniture and draperies, which adds to the comfort of the non-infectious metabolic patient without being a source of danger. The perfect climate of Santa Barbara enables even the bedridden to live an open-air life during the entire year, an extremely important feature of treatment. In the handling of each patient an effort is made to study individual, social and economic problems so that his future mode of living may be suitably modified to favor his physical condition. The problem of chronic diseases will not be solved until more attention be generally paid to this factor.

A number of ward and endowed beds have already been provided in order that needy patients, as well as those desirable for research studies, may be accommodated to the limit of capacity.

The personnel of the staff includes the director, two clinical assistants, chemist, assistant chemist, bacteriologist and clinical pathologist, dietitian-nurse in charge, dietitian, assistant-dietitian, special research worker, secretary, accountant and nursing staff.

The time may be said to be at hand when a suitably organized metabolism unit should be included in the organization of every general hospital. The purposes of the work contemplated must, however, be clearly borne in mind. Thus, should merely the modern treatment of metabolic cases be aimed at, neither an especially constructed and equipped building, nor a large staff are prime necessities. In the writer's opinion, certain requirements must, however, be met to insure real success. Metabolic cases should be under the charge of but a single member of the hospital staff. They must be segregated from other patients, fed from a special diet kitchen, and the chemical work carried out by a worker trained in some well known laboratory. It should never be forgotten that many chemical methods now commonly used demand the finest analytical technique. The chief difficulty in organizing metabolism units will, however, be found to be in securing the physician himself, for not even the

\* The regretted death of Dr. Potter occurred July 5th, 1919. Dr. Nelson W. Janney of New York City had previously been appointed director of the Memorial Laboratory and Clinic.

finest general internal training will insure that keen chemical discernment and extensive knowledge of diet and food values required for success in the treatment of difficult metabolic case problems. It is hoped that the future development of metabolism units will enable young physicians to obtain that which is now so difficult to secure, an adequate metabolic training.

#### REVIEW OF 1918 CENSUS OF CAUSES OF DEATH.

The Census Bureau's annual compilation of mortality statistics for the death registration area in continental United States, which will be issued shortly, shows 1,471,367 deaths as having occurred in 1918, representing a rate of 18.0 per 1,000 population, the highest rate on record in the Census Bureau—due to the influenza pandemic.

Of the total deaths 477,467, or over 32 per cent., were due to influenza and pneumonia (all forms), 380,996 having occurred in the last four months of the year during the influenza pandemic. The rate for influenza and pneumonia (all forms) is 58.2 per 100,000. Influenza caused 244,681 deaths and pneumonia (all forms) 232,786, showing rates of 298.9 and 284.3 per 100,000, respectively, these being the highest rates which have ever appeared for these causes. The rate in 1917 for influenza was 17.2 and for pneumonia (all forms) was 149.8. In fact the difference (416.2 per 100,000 population) between the 1917 and 1918 rates corresponds with the excess mortality which occurred in the last four months of the year from the influenza pandemic.

The next most important causes of death were organic diseases of the heart, tuberculosis (all forms), acute nephritis and Bright's disease, and cancer, which together were responsible for 391,391 deaths, or nearly 27 per cent. of the total number.

The death registration area in 1918 comprised 30 States, the District of Columbia, and 27 registration cities in non-registration States, with a total estimated population of 81,868,104, or 77.8 per cent. of the estimated population of the United States. The Territory of Hawaii is now a part of the registration area, but the figures given in this summary relate only to continental United States.

The deaths from organic diseases of the heart numbered 124,668, or 152.3 per 100,000 population. Tuberculosis in its various forms caused 122,040 deaths, of which 108,365 were due to tuberculosis of the lungs. The death rate from all forms of tuberculosis was 149.1 per 100,000, and from tuberculosis of the lungs, 132.4. The rate from tuberculosis of all forms declined continuously from 200.7 per 100,000 in 1904 to 141.6 in 1916, the decrease amounting to nearly 30 per cent.; but for 1917 and 1918 increases are shown, the 1918 rate being somewhat higher than the rate for 1917, when it was 146.4. Until 1912 more deaths were due to tuberculosis than to any other single cause, but in that year and during the period 1914-1918 the mortality from tuberculosis was less than that from heart diseases.

Bright's disease and acute nephritis caused 79,343

deaths, or 96.9 per 100,000. This is a noticeable decrease as compared with 1917 when the rate was 107.4 per 100,000.

Cancer and other malignant tumors were responsible for 65,340 deaths, of which number 24,783, or nearly 38 per cent., resulted from cancer of the stomach and liver. The rate (79.8) is a decrease from 1917, when it was 81.6. With the exceptions of the years 1906, 1907, 1911, 1917, and 1918, there has been a continuous increase in the death rates from these diseases. Typhoid fever resulted in 10,210 deaths, or 12.5 per 100,000. The mortality rate from this cause has shown a remarkable reduction since 1900, when it was 35.9, the proportional decrease amounting to 65 per cent. This highly gratifying decline demonstrates in a striking manner the efficacy of improved sanitation and of the modern method of prevention—the use of the antityphoid vaccine.

Deaths from automobile accidents and injuries in 1918 totaled 7,525, or 9.2 per 100,000 population. This rate has risen rapidly from year to year, which strongly suggests the need for better traffic regulations and better enforcement of those we now have.

## MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

**Tuesday Afternoon**  
2 to 5 P. M.

### MEDICAL SECTION

Chairman's address,

W. W. ROBLEE, Riverside.

#### 1. THE ETIOLOGY OF ONE HUNDRED AND FIFTY CASES OF ASTHMA.

GEORGE PINESS,

Los Angeles, Calif.

#### 2. MALINGERING—ITS RELATION TO THE DOCTOR.

JOSEPH CATTON,

San Francisco.

Discussion by Henry C. Southworth.

The Doctor may consciously or unconsciously aid, abet or encourage malingering.

In cases involving compensation, the sanity of prisoners charged with murder, etc., doctors may debate their profession by contradictory testimony before boards or courts. In private practice or the clinic, a common opinion would probably have been arrived at in the same premises. Suggested remedies.

#### 3. MISTAKES IN ABDOMINAL DIAGNOSIS.

CARO W. LIPPMAN, San Francisco.

A—Differentiation of

1—Organic.

2—Functional abdominal symptomatology.

3—Importance of fluoroscopic and X-Ray examination in ruling out organic disease.

1—Ulcer 90-93% correct.

1-a—Cancer, impossible to diagnose in early stage. Scirrhus carcinoma—inoperable when they come to the doctor—silent first stage.

2—Gallbladder trouble 50-70% correct. (Stones 30%; Visualized Gallbladder 50-60%; Oesophagospasm 80%; occurrence in other conditions.)

3—Appendix of little value.



- 4—Colon of no value in early stage, only of value in late stage.
  - 5—Difficulty of differentiation of gastric cancer and enlarged liver pressing stomach out of shape. (Hospital practice.)
  - B—Laboratory—
    - 1—Value of Wassermann.
    - 2—Importance of Spinal Wassermann, especially in obscure stomach cases.
    - 3—Value of Schmidt Test Diet in locating pancreatic and gastric functional disorders.
  - C—Limitation of proctoscope, does not go above the first loop of the sigmoid. So-called cure of series of oesophageal carcinoma with Salvarsan—early operation instead.
  - D—Importance of functional causes illustrated with cases.
    - 1—Glenard's syndrome.
    - 2—Orthopedic cases.
    - 3—Heart-Aneurysm.
    - 4—Familial Jaundice.
4. **THE INTRASPINAL TREATMENT OF CEREBROSPINAL LUES.**

H. R. OLIVER, San Francisco.

Discussion by H. G. Mehrrens.

The method of treatment is based upon the artificial overcoming of the choroid block. The rationale of the treatment. Remarks upon lumbar puncture. The action of the treatment upon so-called Wassermann test cases in general luetic infection. An analysis of cases treated. The results obtained in some thirty-four cases. Conclusions.

## SURGICAL SECTION

Chairman's Address—**THE EDUCATION AND TRAINING OF THE MODERN SURGEON.**

ANDREW STEWART LOBINGIER,

Los Angeles.

### 1. BANDS IN FRACTURED BONES.

ASA W. COLLINS,

San Francisco.

Apposition and its maintenance in fractures of the long bones. Internal splints involving the destruction of tissue. Tolerance of tissue toward different metallic substances. Ideal metal for fracture bands from physical and chemical aspect. Removal and non-removal of the bands. Mode of application. Indications for the use of the bands. Demonstration of the band and instrument for its application. Fifty experiments on rabbits. X-ray plates of cases. Conclusions.

Discussion opened by Thos. H. Stoddard.

### 2. FUNCTIONAL RECONSTRUCTION OF THE SHOULDER.

JOHN C. WILSON,

Los Angeles.

Factors essential to function of the shoulder. Indications for arthroplasty or arthrodesis and their comparative values. Report of a case of arthrodesis of the shoulder joint after destruction of the upper one-third of the humerus with good functional result. Lantern slides.

Discussion opened by W. W. Richardson.

### 3. THE OPERATIVE APPROACHES OF THE SHOULDER AND THEIR INDICATIONS.

JAMES T. WATKINS,

San Francisco.

While much progress has been made toward solving the problems due to disturbances of function of the lower extremity, whether due to injury or to disease, relatively slight advances have been made toward alleviating

similar disfunctions of the upper extremity. This is due in part to the circumstance that while the essential facts concerning the physiology and anatomy of the lower extremity are matters of comparatively common knowledge, familiarity with the anatomy and physiology of the upper extremity is by no means so common nor so intimate. Recognition of this fact has led the writer to make on his own account studies and dissections, some of which are presented in this paper.

Discussion opened by Arthur F. Fisher.

### 4. FRACTURE OF THE FEMUR.

HOWARD H. DIGNAN,

San Francisco.

1. Summary of war methods.
2. Personal experiences.
3. Comparison of methods of treatment.
4. Treatment of shortening.
5. Report of cases.

Discussion opened by Lionel Prince.

### 5. A PLEA FOR BETTER FRACTURE RESULTS.

GEORGE McCHESNEY,

San Francisco.

A—War surgery has taught us in fractures

- 1—Improved traction technique.
- 2—That union is procurable in the worse fracture.
- 3—Ease of obtaining union without metallic aid.
- 4—Ease of obtaining union without operation.

B—

- 1—Civil fracture results must be improved.
- 2—Industrial fracture results must be improved.
- 3—This can be done by applying lessons learned in war surgery.

C—War has emphasized the fact that a meticulously exact approximation of fragments is not necessary to good function.

D—Hence much of the plating and sliding bone grafts in fresh fractures unnecessary if not harmful.

E—We should not yield to this temptation to operate but educate public away from thinking that such accurate repositions are required as radiograms would indicate.

Discussion opened by James T. Watkins.

## EYE, EAR, NOSE AND THROAT SECTION

Chairman's Address.

PETER A. JORDAN,

San Jose.

### 1. ACETONE AND DIACETIC ACID IN OPHTHALMOLOGY.

WM. H. DUDLEY,

Los Angeles.

### 2. SIGNIFICANCE OF SPINAL DEFECTS AND PAIN, OCCURRING IN RELATION TO OCULAR DISEASE.

LLOYD MILLS, Los Angeles.

Spinal anomalies, inflammatory foci or their fibrous residues and varying degrees of localized spinal rigidity and pain, especially marked in the "cilio-spinal" region, are found with frequency in such ocular affections as glaucoma, iritis, and stubborn conjunctiva engorgement.

The relief of the defect or pain may reduce or relieve the ocular symptoms.

### 3. INTRA-OCULAR FOREIGN BODIES—THEIR LOCALIZATION AND REMOVAL.

HANS BARKAN,  
San Francisco.

Accurate localization of foreign bodies if posterior to iris plane, great importance. Question of scleral incision underneath external or internal rectus. Splinting wound with these muscles.

Technique of magnet application.

Discussion of removal after considerable lapse of time since injury, with end results.

Demonstration series of foreign bodies with localizing diagrams and discussion.

Certain features of certain of these cases.

### 4. OPHTHALMOLOGIC OBSERVATIONS FROM MY SERVICE IN A. E. F. IN FRANCE.

VARD H. HULEN,  
San Francisco.

Orders for overseas. Base Hospital 104. Preparations for embarkation. Sailing on S. S. Mauretania; destination unknown. "Rest Camps." Journeying to Beau Desert, Bordeaux, France. On duty Hospital Center No. 2, A. E. F.

Arrivals of sick and wounded and distribution. Ophthalmic wards and special equipments. Eye injuries and work in Eye Clinics. Optical departments—their strength and their weakness.

The totally blinded. Ophthalmic consultants.

Lagrange's plastic work and the wonderful French Military Clinics for Eye Surgery. Deductions.

### 5. RUPTURE OF THE CORNEA—WITH CASE REPORTS.

GEO. KRESS, Los Angeles.

General remarks. Case reports. Man, age 65, laborer, eye struck by fist of fellow workman. Rupture of the cornea, entire vertical meridian. In initial pain, practically, all of the iris brushed out of eye by patient's hand. Lens also expelled. Condition went on to good healing.

Possible now for observer, which his naked eye, to see the nerve head of the injured eye on both sides of the scar.

With correcting glass of approximately a plus eleven sphere, combined with a plus one cylinder at 90, this injured eye is able to read the 3-60 line, plus one letter.

## GENITO-URINARY SECTION

Chairman's Address. L. J. Roth, Los Angeles.

### 1. INTESTINAL-VESICAL FISTULAE.

LOUIS CLIVE JACOBS,  
San Francisco.

Report of cases, the etiology, the pathology and treatment of the same.

### 2. INVOLVEMENT OF THE GENITO-URINARY TRACT ASSOCIATED WITH ACTIVE PULMONARY TUBERCULOSIS.

ANDERS PETERSON.

Clinical cases and autopsy findings in patients with active pulmonary tuberculosis relative to the involvement of the genito-urinary organs. Observations made from material at the U. S. General Hospital, Fort Bayard, New Mexico.

### 3. SURGICAL CONDITIONS IN THE GENITO-URINARY TRACT IN CHILDREN.

WM. E. STEVENS,  
San Francisco.

Frequency of kidney lesions in children requiring surgical treatment. Plea for a more thorough examination of the urinary tract. Cystoscopy. Ureteral catheterization.

Functional kidney tests. Pyclography.

Pyelitis associated with strictures of the ureter and urethra. Hydronephrosis and dilatation of the ureter. Tuberculosis of the kidney.

Radiographs and Pathological specimens. Conclusions.

### 4. URINARY INCONTINENCE AND ITS OPERATIVE REPAIR.

JAMES R. DILLON,  
San Francisco.

Brief review of literature. Etiology, Pathology. Operative indications and contra-indications. Operative procedure. Report of cases.

## Wednesday Morning

9 A. M. to 12 M.

## MEDICAL SECTION

### 5. THE PROGNOSIS AFTER THE REMOVAL OF FOCAL INFECTIONS.

N. W. JONES,  
Portland, Oregon.

### 6. THE ROENTGENOLOGIC ASPECT OF GASTRIC AND DUODENAL ULCERS.

RUSSELL D. CARMAN.

Mayo Foundation, Rochester, Minn.

### 7. A CHEMICAL CONSIDERATION OF THE THYROID.

E. C. KENDALL,

Mayo Foundation, Rochester, Minn.

## NEUROLOGICAL SECTION

Chairman's Address.

### 1. DELAYED ULNAR PALSY FOLLOWING ELBOW INJURIES.

WALTER F. SCHALLER,  
San Francisco.

Report of cases. Discussion of clinical course and pathology. Differential diagnosis with especial reference to etiology of ulnar palsy, and literature references.

Discussion opened by Emmet Rixford.

### 2. EPISODIC MENTAL STATES AND BORDERLINE CONDITIONS IN PSYCHIATRY.

CHAS. L. ALLEN,  
Los Angeles.

Impossibility of setting a hard and fast standard of mental normality.

Fluctuations in the mental states of individuals, of groups and of peoples, particularly in the affective sphere.

Dependence of these variations upon individual make-up, sematic causes and social conditions.

Importance of these relationships in Psychopathology and their estimation in diagnosis, prognosis and treatment.

Discussion opened by A. W. Hoisholt.

### 3. SCIATICA.

MILTON B. LENNON,  
San Francisco.

Its causes—particularly its mechanical cause.

Discussion opened by W. Baldwin.

### 4. NOTES ON PATHOLOGICAL REFLEXES.

THOMAS G. INMAN,  
San Francisco.

Question of pathological reflexes being always indicative of pyramidal tract disturbances.

Cross adductor Rossolimo, Bchterew-Mendel reflexes noted in conditions other than pyramidal tract disturbances.

Discussion opened by Milton B. Lennon.



## INDUSTRIAL MEDICINE SECTION

1. THE IMPORTANCE OF BOTULISM AS A PUBLIC HEALTH PROBLEM IN CALIFORNIA.

ERNEST C. DICKSON,  
San Francisco.

Discussion by Karl Meyer and Major J. Geiger, U. S. P. H. S.

2. INTESTINAL PARASITES.

C. A. KOFOID,  
University of California, Berkeley.

Discussion opened by W. E. Musgrave.

3. TREATMENT OF INTESTINAL PARASITES.

C. L. McVEY, Oakland.

Discussion opened by Herbert Gunn.

4. THE WORK OF THE STATE BOARD OF HEALTH.

W. H. KELLOGG, Sacramento.

Discussion opened by Robert A. Peers.

5. THE NARCOTIC CLINIC.

DANIEL CROSBY, Oakland.

## EYE, EAR, NOSE AND THROAT SECTION

6. RADIUM IN CATARACTS.

W. S. FRANKLIN and  
F. C. CORDES,  
San Francisco.

The paper describes the simple method of application which has been developed, the exposure, dosage used, and other technique, together with a tabulation of results.

Radium has been used by us for the past nine months in the treatment of incipient cataracts. Over thirty cases have been observed. The results have been very encouraging; the vision has been improved, and the process apparently checked.

7. CATARACT EXTRACTION—THE SAFEST METHOD.

RODERIC O'CONNOR,  
San Francisco.

The writer takes the stand that, under conditions in this country, an extraction in the capsule is inexcusable as a routine procedure. Statistics of results by both methods presented. Describes the safest method, in his opinion, of handling a cataract case.

8. TEETH, TONSILS AND SINUSES.

ROBT. B. SWEET,  
Long Beach.

Classification of all infections of the teeth, tonsils and sinuses under one head, as regards etiology, bacteriology, reflex symptoms, systemic effects. Intimate relation of teeth to tonsils and sinuses eyes and ears. Theories held by dentists regarding infected teeth. Plea for a more comprehensive view of head infections. X-Ray cases.

9. SURGICAL TREATMENT OF PITUITARY NEOPLASM.

EDWARD C. SEWALL,  
San Francisco.

Three cases operated upon under local anesthetic by the trans-sphenoidal-septae route. Recent case shows very positive improvement. Choice of route of approach to the sella is open to interesting discussion. From the standpoint of the patient the intranasal route furnishes distinct advantages.

## GENITO-URINARY SECTION

5. CANCER OF THE PROSTATE.

R. L. RIGDON, San Francisco.

6. SOME FURTHER EXPERIENCES IN THE TECHNIC, NON-OPERATIVE, PRE-OPERATIVE AND POST-OPERATIVE TREATMENT OF SUPRAPUBIC PROSTATECTOMY CASES.

H. A. ROSENKRANZ,  
Los Angeles.

A consideration of diet, catharsis, pre-operative purgation, diarrhea, flatulence, focal infections, nursing, two-stage versus single-stage operation, anesthesia, hemorrhage, pernicious hiccup, pain. Results as regards potency, ejaculation and bladder neck. Results in cancer.

7. A STUDY OF TUMORS OF THE VESICAL NECK AND PROSTATIC URETHRA WITH THEIR RELATION TO CHRONIC PROSTATIS.

L. P. PLAYER and C. P. MATHE,  
San Francisco.

8. URETERAL TRANSPLANTATION.

ROBERT V. DAY,  
Los Angeles.

In carcinoma of cervix uteri. Carcinoma and tuberculosis of the bladder. Causing urinary obstruction in a ureter or ureters from infiltration.

## SURGICAL SECTION

6. SOME DEFORMITIES OF THE HAND.

WALTER I. BALDWIN,  
San Francisco.

Causes. Groups. Fractures. Tendons. Nerve injuries.

Discussion opened by John Dunlap.

7. ATTRAUMATIC TECHNIQUE AN ESSENTIAL IN RECONSTRUCTIVE SURGERY.

STERLING BUNNELL,  
San Francisco.

Trauma during operations produces fibrosis. Fibrosis binds movable parts, destroying their function. To succeed in reconstructive surgery it is necessary to diminish our trauma to the minimum. Methods to accomplish this.

Discussion opened by J. Henry Barbat.

8. PRESENT STATUS OF THE SCIENCE OF ANESTHESIA AND THE ANESTHETIST.

ELEANOR SEYMOUR,  
Los Angeles.

This subject will be touched on very lightly historically; the present status and problems more elaborately worked out and the importance of standardization especially emphasized.

Discussion opened by Mary E. Botsford.

9. INDICATIONS FOR INFUSION AND TRANSFUSION IN CASES OF ACUTE HEMORRHAGE AND SHOCK.

EDMUND BUTLER, San Francisco.

Absolute indication.

Theories of shock.

1—Acapnia theory.

2—Suprarenal exhaustion theory.

3—Nerve exhaustion theory.

Definition of shock.

Trauma and hemorrhage—their relation to shock.

Means at our disposal to know when transfusion is relatively indicated.

1—Subjective symptoms.

2—Objective signs.

3—Blood count, (a) venous blood; (b) capillary blood.

- 4—Blood volume.
  - 5—Blood pressure.
  - 1—Mild degree of shock; case report—indications for treatment used.
  - 2—Moderate degree of shock—case report—indications for treatment used.
  - 3—Severe degree of shock—case report—indications for treatment used.
  - Extreme degree of shock—case report—indications for treatment used.
  - Discussion opened by Herbert I. Chapman.
10. **RECENT DEVELOPMENTS IN RADIUM THERAPY—ILLUSTRATED WITH LANTERN SLIDES.**
- REN DUNCAN, Los Angeles.
- The purpose of this paper is to explain briefly the principles involved in the therapeutic application of radium emanation, the use of which has greatly broadened the scope of radium therapy, and to illustrate the technique of application, together with the results obtained in various pathological conditions.
- Discussion opened by \_\_\_\_\_.

### Wednesday Noon

12 M. to 2:30 P. M.

### LEAGUE LUNCHEON

GIVEN UNDER THE AUSPICES OF LEAGUE FOR THE CONSERVATION OF PUBLIC HEALTH.

Subjects and Speakers to be announced at later date.

### Wednesday Afternoon

2:30 to 5:30 P. M.

### MEDICAL SECTION

- 8. **CHAIRMAN'S ADDRESS. A DISCUSSION OF THE PRESENT NURSING SITUATION.**  
W. W. ROBLEE,  
Riverside, Calif.
- 9. **ORGANIZATION AND SCOPE OF THE MEMORIAL LABORATORY AND CLINIC FOR THE STUDY OF METABOLIC DISEASES.**  
N. W. JANNEY,  
Memorial Laboratory and Clinic,  
Santa Barbara, Calif.  
Modern treatment of metabolic cases requires special organization.  
Suggestions as to the organization of Metabolism Units as exemplified by the Memorial Metabolic Clinic of Santa Barbara.
- 10. **BASAL METABOLISM IN THYROID DISEASE.**  
ALBERT ROWE,  
Oakland, Calif.  
I. Previous Investigations.  
II. The Value of Basal Metabolic Studies in the Diagnosis of Thyroid Activity.  
(a) The differentiation of the neurotic from the hyperthyroid individual.  
(b) Hypothyroidism and Hyperthyroidism.  
III. Basal Metabolic Studies as a Guide to Operative and X-ray Treatment of Thyroid Disease.
- 11. **HYPERTENSION IN WOMEN DURING THE MENOPAUSE.**  
ROLAND S. CUMMINGS,  
Los Angeles, Calif.  
Secretion of Corpus Luteum possibly a hypotensive substance. Diminution of this substance causes the menopause and possibly disturbs endocrine balance.  
In one hundred women, whose systolic

pressures were over one hundred and sixty, forty-nine per cent. were in the menopause period. Other factors, as apical abscesses, chronic tonsillitis, chronic constipation, etc., were present in many also.

Apparent drop in pressures by use of Thyroid and Corpus Luteum extract.

- 12. **A GROUP STUDY OF THREE HUNDRED CASES OF ARTHRITIS.**

M. C. HARDING,  
San Diego, Calif.

Paper based on work done at Camp Lewis Base Hospital. Poor treatment in the general wards. Formation of the arthritis wards. Need of separate wards in the orthopedic department. Formation of the group and its personnel. Routine of examination by specialists. Percentage of various foci of infection. Treatment. Splinting. Salicylates. Heat. Operative treatment. Medical treatment. Results. Deductions drawn from the series.

### EYE, EAR, NOSE AND THROAT SECTION

- 10. **CLOSURE OF FISTULOUS OPENINGS THROUGH THE ALVEOLAR PROCESS INTO THE ANTRUM OF HIGHMORE; WITH LANTERN SLIDE DEMONSTRATION.**

CULLEN F. WELTY,  
San Francisco.

This surgical procedure is designed to close fistulous communications between the mouth and the Antrum of Highmore. The fistulous communications referred to are those that have refused to close, regardless of the method. The simple procedure of removing the alveolar process on either side of the fistulous communication until enough tissue is secured to come together; after this a horizontal incision is made in the median line the entire length of the hard palate. The mucous membrane and the periosteum elevated and incised at the site of the opening to be closed; a perforated metal disc through which a suture is introduced to hold the denuded parts together for a period of eight days, when the parts will be entirely grown together.

- 11. **PLASTIC SURGERY OF THE NOSE; WITH LANTERN SLIDE DEMONSTRATION.**

H. B. GRAHAM,  
San Francisco.

- 12. **PREHISTORIC TREPHINING OF FRONTAL SINUS.**

FRANK A. BURTON,  
San Diego.

Key specimen in grasping prehistoric trephining, probable methods, instruments used, conjecture as to anesthetic, main prehistoric theories of disease—relation to prehistoric trephining purposes of the operation, the amulet. Showing and consideration of specimens from Indian skulls obtained from ancient cemeteries in Peru.

These specimens show frontal sinus operations done 1500 to 2000 years ago.

- 13. **A NEW DISEASE OF THE EAR.**

HARVARD McNAUGHT,  
San Francisco.

This in all probability is a sequel to Influenza, all five cases having had that disease. The physical findings similar to those of Oto-sclerosis would point to some bone changes analogous to those produced by that disease and probably caused by the toxins of B. Influenza.



14. **SURGICAL TREATMENT OF ACUTE OTITIS MEDIA IN CHILDREN WITH REPORT OF CASE.**

J. A. BACHER, San Francisco.

1. Indications for Surgical Intervention.
2. Surgical Procedure.
3. Report of Cases.

15. **A STUDY OF NASAL CONDITIONS OCCURRING IN BRONCHIAL ASTHMA.**

SIMON JESBERG,  
Los Angeles.

## INDUSTRIAL MEDICINE SECTION

6. **ADDRESS—INDUSTRIAL MEDICINE.**

R. T. LEGGE, Chairman,  
University of California.

No discussion.

7. **HOW CAN INDUSTRIAL SURGERY BE IMPROVED?**

MORTON GIBBONS,  
San Francisco.

Discussion.

8. **VALUE OF PHYSICAL EXAMINATIONS AMONG INDUSTRIAL EMPLOYEES.**

CHAS. A. DUKES, Oakland.

Discussion opened by Mark L. Emerson.

## OBSTETRIC AND GYNECO- LOGIC SECTION

Chairman's Address.

1. **ROENTGEN TREATMENT OF UTERINE HEMORRHAGE.**

L. C. KINNEY, San Diego.

This is a report covering twenty-five cases of metrorrhagia, including moderate sized fibroids, polypoid endometritis and irregular hemorrhages of the menopause. In all but one of these cases there has been a complete menopause after three Roentgen series and no untoward results. In all cases fibroids have become symptomless. Discussion of indications, contraindications and results.

Discussion opened by Albert Soiland.

2. **VARICOSE VEINS OF THE BROAD LIGAMENT.**

L. A. EMGE, San Francisco.

- 1—Discussion of the relative frequency of varicosities of the female pelvic circulation.

a—Their etiological significance as to congenital origin;

b—Their etiological significance as to acquired or secondary origin;

- 2—Discussion of the symptoms.

a—As they present themselves in an obscure way simulating other ailments;

b—As they stand out as a single group after careful grouping of the facts.

- 3—Discussion of the gross pathology.

a—The relation to sterility.

- 4—Methods of diagnosis.

a—The reason why they are so often overlooked;

b—Suggestions as to proper examination.

- 5—Treatment.

a—The maltreatment;

b—The obsolete radical way;

c—The logical way.

- 6—Prognosis.

- 7—Report of cases.

Discussion opened by Frederic M. Loomis.

3. **HEAT, THE MOST PRACTICAL AND PROMISING TREATMENT IN UTERINE CARCINOMA.**

J. F. PERCY, San Diego.

1—Heat is the oldest known method of treating inoperable uterine carcinoma.

2—It is the only method that has survived and at the same time in any measure retained the confidence of surgeons the world over as to its value.

3—With increasing knowledge of the more thorough and wider application of heat it is entering upon a new era of successful and hopeful development.

4—The aim of the paper is to indicate the correct application of the heat in pelvic carcinoma and by case reports to demonstrate the utilitarian aspects of the heat treatment.

Illustrations with lantern.

Discussion opened by W. G. Moore.

4. **RETROVERSIONS OF THE UTERUS.**

FRANK LYNCH, San Francisco.

Etiology—Based on the fact that 54% of 1200 obstetrical cases in the University of California Hospital had posterior displacements from one to twelve months after delivery.

Tables classified according to spontaneous and instrumental deliveries and re-divided as to marked injury and lacerations of the pelvic floor.

Development of symptoms may be gradual. Follow up cases show that posterior displacement, per se, may not give symptoms. Unless there is disturbance of the pelvic circulations there need be no symptoms unless inflammatory changes are associated with displacement. Enteroptosis as cause of symptoms.

Treatment—Results of pessary treatment in displacements occurring in the Obstetrical Service, University of California Hospital.

Operation—Factors underlying proper operation. Results have shown that no one operation is satisfactory for all cases.

Treatment considered from a study of 300 cases of simple retroversion treated during the last four years.

Illustrations with lantern.

Discussion opened by A. B. Spalding.

## NEUROLOGICAL SECTION

5. **MODERN TREATMENT OF NEUROSYPHILIS.**

HENRY G. MEHRTENS,  
San Francisco.

Difficulty in estimating therapeutic values of the various methods

a—Intensive intravenous and intramuscular therapy;

b—Drainage of spinal fluid;

c—Intradural methods;

e—Methods dependent on irrigation of the meninges;

f—Rectal therapy combined with meningeal irritation.

Selection of method of treatment.

Clinical results.

Discussion opened by W. F. Schaller.

6. **A CASE OF GLIOMA OF THE SPINAL CORD.**

RICHARD W. HARVEY,  
San Francisco.

Etiology, symptoms, signs and course of gliomata of the spinal cord. Description of case in University Hospital—symptoms, signs, and diagnosis, and its course to termination.

Autopsy findings with demonstration of gross specimen, slides and photographs.

Discussion of treatment, with emphasis on conservation in intramedullary tumors.

Discussion opened by H. C. Naffziger.

#### 7. CRIME AND CRIMINALS FROM THE PSYCHIATRIC VIEWPOINT.

HAROLD W. WRIGHT,  
San Francisco.

Attempts to classify criminals. Marked improvement in our knowledge due to careful case records. Environment and innate defects of adaptation. The question of "responsibility." Confusion of the minds of juries. The work of Goring showing no "criminal type," but a diffuse defectiveness.

The folly of fitting the punishment to the crime and not to the criminal.

Possibilities of securing adequate protection for society.

Discussion opened by Norbert Gottbrath or A. Ritter.

#### 8. THE FORMICATION TEST IN PERIPHERAL NERVE INJURIES—ITS INTERPRETATION.

CHARLES L. TRANTER,  
San Francisco.

A comparison of the intensity of formication elicited by pressure at the lower limit of the "zone of formication" (corresponding to the area of regeneration of affected nerve), with that elicited at the level of the lesion; and a determination of the daily increase in length of the zone, are both necessary for the proper interpretation of the test.

Of great value as part of neurological examination. Is not a short cut to diagnosis; it may however be the only sign of regeneration during many months. Especially valuable now, there being so many patients convalescing from peripheral nerve injuries, the result of the war.

Discussion opened by Ernest Cleary.

### GENITO-URINARY SECTION

#### 9. EXPERIENCES IN TESTICLE TRANSPLANTATION.

L. L. STANLEY,  
San Quentin.

In past eighteen months testicles removed from executed men have been transplanted to old and otherwise deficient prisoners.

Some merely placed in scrotum, others sewed to recipient's atrophied gland.

Good results demonstrated by increased vitality, change of voice, improved eyesight, increased sexual activity, and general improved outlook in life.

Also brief history of the procedure, and reference to internal secretions.

#### 10. BILATERAL NEPHRO-LITHIASIS.

G. W. HARTMAN and  
S. A. GOLDMAN,  
San Francisco.

#### 11. SOME OBSERVATIONS FROM THE CLINICAL AND LABORATORY FINDINGS IN PYELITIS AND PYELONEPHRITIS.

LEON ROTH, Los Angeles.

Lack of parallelism of symptoms, clinical course and laboratory findings. Pathological consideration regarding absence of casts. Leucocyte count. Case Reports. Treatment.

### Thursday Morning

9 A. M. to 12 M.

### MEDICAL SECTION

#### 13. THE ELECTROCARDIOGRAPHIC STUDY OF HEART DISEASE.

ROLAND TUPPER.

Explanation of the normal electrocardiograph. Lantern slides of the various arrhythmias. Summary of what the electrocardiograph has taught us and its present-day uses.

#### 14. THE DIAGNOSIS OF NON-TUBERCULOUS LESIONS OF THE LUNGS.

LLOYD BRYAN,  
San Francisco, Calif.

The X-Ray as an aid in the differential diagnosis of pulmonary conditions—non-tubercular.

Conditions which may be confused with tuberculosis.

Similarity and differential diagnosis between tuberculosis and lung tumors, Hodgkin's disease, metastatic malignancy, pneumoconiosis, coecidiodides, abscess, cyst, bronchiectasis, Lues, calcium metastases.

Lantern slides of X-Ray plates illustrating the different conditions.

#### 15. ARTIFICIAL PNEUMOTHORAX IN PULMONARY TUBERCULOSIS.

L. M. RYAN,  
Banning, Calif.

Giving briefly the history and theory of action of indications and contraindications for complications and their treatment. Results. Demonstration of apparatus, technique, temperature charts and radiographs. Value of in treatment of tuberculosis.

#### 16. THE PROBLEM OF NON-TUBERCULOUS RENAL INFECTION.

FRANK HINMAN,  
San Francisco, Calif.

KARL F. MEYER,  
University of California,  
San Francisco, Calif.

1. Type of organisms causing infection; elective specificity of some bacteria; Differences in pathological lesions produced by the various organisms. Routes of infection. Predisposing factors. General and local immunity. Specific and Chemotherapeutic treatment.

2. Experimental attempts to reproduce the factors mentioned under (1).

3. Clinical Correlation: Classification of cases. Secondary conditions found. Surgical correction of predisposing factors. Vaccine treatment and its value.

### SURGICAL SECTION

#### 11. PRIMARY CARCINOMA OF THE VERMIFORM APPENDIX.

B. J. O'NEILL, San Diego.

Frequency. Symptoms. Diagnosis and Differential Diagnosis. Relative Benignancy. Report of two cases.

Discussion opened by Thomas O. Burger.

#### 12. THE RELIEF OF INTRACRANIAL PRESSURE.

HOWARD C. NAFFZIGER,  
San Francisco.

Diagnosis of intracranial pressure—acute and chronic. Indications governing treatment. Methods adopted. Choice of operative procedure. Results.

Discussion opened by Carl Rand.



**13. OPERATIVE RESULTS IN SELECTED CASES OF CEREBRAL SPASTIC PARALYSIS FOLLOWING INTRACRANIAL HEMORRHAGE AT BIRTH.**

CARL W. RAND, Los Angeles.

Review of literature of cases of intracranial hemorrhage following birth injury. Discussion of pathology involved. Report of six cases operated upon, with subsequent clinical course. Conclusions.

Discussion opened by Howard C. Naffziger.

**14. CARCINOMA OF THE BREAST.**

CLARENCE MOORE, Los Angeles.

A plea for the earlier recognition of carcinoma of the breast by the physician. More thorough examination before operation, especially for remote metastasis. What may be expected from operation. Clinical report of 76 cases.

Discussion opened by Stanley Stillman.

**15. CYSTS AND FISTULAE OF THE THYROID GLAND.**

P. K. GILMAN, San Francisco.

1—Embryology—development of the duct.

2—Anatomy—structure of persistent portion or portions of tract.

3—Pathology—lesions resulting from persistence of duct in part or as a whole, (a) solid growths; (b) cysts; (c) fistulae.

4—Case reports. Eight personal cases.

5—Diagnosis and treatment—differential diagnosis from other cystic and some solid growth. Treatment surgical.

6—Conclusions.

(Paper illustrated with lantern slides.)

Discussion opened by Guy Cochran.

## INDUSTRIAL MEDICINE SECTION

**9. TREATMENT OF INDUSTRIAL DISABILITIES INVOLVING THE SPINAL COLUMN.**

H. L. LANGNECKER,  
San Francisco.

Discussion opened by M. E. Rumwell.

Frequency; duration; economic value; importance of immediate correct diagnosis; recognition of industrial viewpoint; inadequate or delayed treatment; musculo-ligamentary group-bone injury group; complications such as anatomical variations, osteoarthritis, functional neuroses.

**10. STIFFNESS IN THE EXTREMITIES FOLLOWED BY ACCIDENT AND INJURY.**

A. L. FISHER, San Francisco.

1—Causes of stiffness. Nature and character of each of the following groups of lesions:

a—Bone;

b—Cartilage;

c—Synovial membrane;

d—Joint capsule;

e—Muscular;

f—Tendon;

g—Fascia;

h—Nerve.

2—Appropriate treatment of each of the above.

3—Prognosis: A recognition of those which may improve and of those in which the loss of function must be accepted.

Discussion opened by James T. Watkins.

**11. DEFORMITIES OF THE HAND ACQUIRED AFTER ACCIDENT.**

Dr. GOTTLIEB.

Discussion opened by Lester I. Newman.

**12. THE ONE-ARMED IN INDUSTRY.**

LEO ELOESSER, San Francisco.

Discussion opened by R. W. Harbaugh or R. T. Lege.

**13. THE INDUSTRIAL SURGEON.**

G. BARRETT, San Francisco.

Discussion opened by G. G. Moseley.

## OBSTETRIC AND GYNECOLOGIC SECTION

**5. ECLAMPSIA WITH SEVENTY CONVULSIONS.**

A. B. SPALDING,  
San Francisco.

1. Case Report.

Mrs. D. K. C., age 23, gravid, two, one spontaneous abortion. Headaches with periods lasting three to four hours. Pregnancy normal except moderate rise in blood pressure; labor due October 24, 1919; entered hospital October 27, 1919, with headache, gastric pain, blood pressure 150, casts in urine, few labor pains followed by convulsion. Cesarean Section. After regaining consciousness patient had three convulsions on day of operation, seven convulsions on 1st day P. O., eight convulsions on 2nd day, four convulsions on third day, three convulsions on fourth day, forty-four convulsions on fifth day. Gradually regained consciousness on eighth day with ultimate recovery. Report of clinical course, laboratory findings and treatment.

Discussion opened by Frank Lynch.

**6. POST-MATURITY OF FETUS.**

NORMAN H. WILLIAMS,  
Los Angeles.

1. Introduction.

(a) Relation of Prematurity; maturity; Post-maturity.

(b) Relation of size of fetus and size of maternal pelvis; comparative stress laid on the above.

2. Dangers of Post-Maturity.

(a) Fetal; asphyxia; instrumental injury; death by instrumentation.

(b) Maternal; prolonged labor; exhaustion; inertia; injury to soft parts (uterus, cervix, vagina, perineum, rectum and bladder).

3. Determination.

(a) Post-Natal; enlarged child; factors influencing size of child; length; weight; head.

(b) Pre-Natal; time element; hereditary factor; history; fetal measurements; methods; Ahfeld, with Thoms modification; McDonald; Perret; X-Ray.

4. Prevention.

(a) Induction of labor; abuse of "Obstetrics by Appointment"; condition and estimated size of child; comparative size of pelvis; time for induction.

(b) Regulation of maternal nutrition during pregnancy.

(c) Cases.

(d) Bibliography.

Discussion opened by H. A. Stephenson.

**7. COMPARISON OF END-RESULTS OF RADICAL AND CONSERVATIVE PELVIC SURGERY.**

ALICE F. MAXWELL,  
San Francisco.

1. Frequency and intensity of post-operative and physiological ablation symptoms and modifying factors. The value of ovarian therapy. Post-operative routine as carried out in the Gynecological Department

- of the University of California Hospital.
2. Frequency of pregnancy following conservative pelvic surgery in the presence of pelvic peritonitis.
3. Statistics from literature.
4. Conclusions.

Discussion opened by Frank Lynch.

## 8. OPERATIONS ON PATIENTS WITH LOW HEMOGLOBIN.

WILLIAM HENRY GILBERT,  
Los Angeles.

Discussion opened by David Hadden.

## Thursday Afternoon

2 o'clock

## SURGICAL SECTION

### 16. THE TECHNIC OF AMPUTATION IN GANGRENE.

O. D. HAMLIN, Oakland.

The manner of handling tissues. The method of making the flap. The necessities of arterial supply to flap.

Discussion opened by Harry M. Sherman.

### 17. SURGERY OF THE CHEST.

CHARLES D. LOCKWOOD,  
Pasadena.

This paper is based upon observation of chest wounds during the war. Forty-two wounded soldiers with chest injuries came under the author's personal supervision.

Military experience has taught us that surgery of the lungs can be brought under the same general principles as are applied to other organs of the body. The principles to be observed are:

- 1—Selection of anesthetic. Local anesthetic and Nitrous Oxide are best.
- 2—Free exposure of the field of operation. Discussion of the best methods of exposure.
- 3—Thorough removal of all infected tissue in traumatic cases, i. e. "debridement."
- 4—Tight closure of the chest wall, unless there is intropneural infection.
- 5—Drainage in all secondary infectious complications—hemorrhage, sepsis, pneumothorax.

Post-operative—Care, Posture, Carrel-Dakin, Irrigation, Aspiration. Methods of securing lung expansion.

Discussion opened by Emmet Rixford.

### 18. DIVERTICULA OF THE JEJUNUM.

WALLACE IRVING TERRY,  
San Francisco.

Report of a case of multiple diverticula of the upper jejunum. Discussion of the condition. Pathology, treatment, literature.

Discussion opened by Rea Smith.

### 19. CARCINOMA OF THE DUODENUM WITH REPORT OF FIVE CASES.

EMMET RIXFORD, San Francisco.

In post-operative management of abdominal cases, a plea for uniformity in post-operative treatment.

Discussion opened by Clarence Moore.

## PERSONNEL OF THE HOUSE OF DELEGATES FOR 1920

### Alameda

#### DELEGATES

L. P. Adams  
E. E. Brinckerhoff  
Daniel Crosby  
C. A. Dukes  
M. L. Emerson  
R. T. Legge

#### ALTERNATES

P. F. Abbott  
G. E. Brinckerhoff  
S. H. Buteau  
T. J. Clark  
W. A. Clark  
C. A. Depuy

Pauline S. Nusbaumer  
Geo. G. Reinle  
Dudley Smith  
W. H. Strietmann

David Hadden  
W. H. Irwin  
T. C. McCleave  
H. G. Thomas

### DELEGATE

D. H. Moulton

### Butte

### ALTERNATE

N. T. Enloe

### Contra Costa

### DELEGATE

G. M. O'Malley

### ALTERNATE

C. T. Wetmore

### Fresno

### DELEGATES

W. W. Cross  
J. R. Walker  
Kenneth J. Staniford  
J. L. Maupin

### ALTERNATE

A. E. Anderson

### Humboldt

### DELEGATE

E. J. Hill

### Los Angeles

### DELEGATES

(For 1919 and 1920)

Leon Roth  
Granville MacGowan  
Edward T. Dillon  
W. T. McArthur  
W. R. Molony  
Harlan Shoemaker  
Stanley P. Black  
Lyle G. McNeile  
H. H. Sherk  
Chas. D. Lockwood  
Rea Smith  
Chas. W. Anderson  
W. W. Richardson  
Guy Cochran  
Lewis B. Morton

(For 1920 and 1921)

Bert Ellis  
A. F. Speik  
Andrew S. Lobingier  
A. R. Rogers  
H. G. Brainerd  
E. Avery Newton  
Geo. Piness  
Eleanor Seymour  
Albert Soiland  
O. O. Witherbee  
Frank Miller  
P. O. Sundin  
Harry Voorhees  
Joseph King  
J. J. O'Brien  
Geo. L. Cole  
Wm. Duffield  
Hill Hastings  
I. M. Powers  
F. C. E. Mattison  
Chas. W. Decker

### ALTERNATES

(For 1919 and 1920)

John V. Barrow  
Walter Wessels  
Thos. C. Myers  
W. H. Brownfield  
Nannie Dunsmoore  
Margaret Roberts  
A. J. Scott, Jr.  
Arthur S. Granger  
J. Mark Lacey  
Wayland Morrison  
Norman Williams  
Frank C. Wiser  
H. A. Rosenkranz  
Clarence Toland  
A. B. Cecil  
(For 1920 and 1921)  
Donald Frick  
A. H. Zeiler  
Clarence Moore  
J. L. Pomeroy  
C. P. Thomas  
L. Lore Riffin  
Byron Palmer  
H. P. Wilson  
Caroline McQuisten Leete  
G. H. Gailbraith  
Paul W. Newcomer  
Clarence Johnson  
Ross Moore  
Frank M. Mikels  
E. C. Fishbaugh  
Moses Sholtz  
E. M. Lazard  
R. B. Sweet  
Geo. Martyn  
M. L. Moore

### Marin

### DELEGATE

E. L. Stanley

### ALTERNATES

A. H. Mays  
W. F. Jones

### Merced

### DELEGATE

J. L. Mudd

### ALTERNATE

W. E. Lilley

### Monterey

### DELEGATE

Garth Parker, Salinas

### ALTERNATE

E. W. Reeves, Salinas

### Riverside

### DELEGATES

L. M. Ryan (1920)  
Paul E. Simonds  
(1920-21)

### ALTERNATES

Bon O. Adams  
W. D. Rolph



## Sacramento

## DELEGATES

J. W. James  
F. F. Gundrum  
E. T. Rulison

## ALTERNATES

W. J. Hanna  
E. M. Wilder  
A. M. Henderson

## San Benito

## DELEGATE

L. C. Hull

## ALTERNATE

F. O. Nash

## San Bernardino

## DELEGATES

Howard G. Hill  
J. H. Evans

## ALTERNATES

C. F. Whitmer  
C. L. Curtiss

## San Diego

## DELEGATES

Robert Pollock  
P. M. Carrington  
L. C. Kinney  
W. W. Crawford  
R. J. Pickard

## ALTERNATES

Frank Bell  
F. P. Lenahan  
A. M. Lesen  
J. C. E. Nielsen  
Carl S. Owen

## San Francisco

## DELEGATES

H. E. Alderson  
W. C. Alvarez  
W. W. Boardman  
P. K. Brown  
F. B. Carpenter  
W. B. Coffey  
G. E. Ebright  
Leo Eloesser  
G. H. Evans  
W. S. Franklin  
H. W. Gibbons  
J. H. Graves  
H. P. Hill  
Frank Hinman  
Sol. Hyman  
Lovell Langstroth  
H. C. Moffitt  
Howard Morrow  
Emmet Rixford  
W. E. Stevens  
A. B. Spalding  
W. I. Terry  
V. G. Vecki  
C. F. Welty

## ALTERNATES

W. C. Voorsanger  
S. H. Hurwitz

## San Joaquin

## DELEGATES

Margaret Smyth  
R. T. McGurk  
B. J. Powell

## ALTERNATES

J. D. Dameron  
F. P. Clark

## Santa Clara

## DELEGATES

C. E. Saunders, San Jose  
Frank Paterson, San Jose  
J. C. Blair, San Jose

## ALTERNATES

Doxey Wilson, San Jose  
C. G. Wilson, Palo Alto  
D. A. Beattie, San Jose

## San Luis Obispo

## DELEGATE

W. M. Stover

## ALTERNATE

G. L. Sobey

## Shasta

## DELEGATE

Ferdinand Stabel

## ALTERNATE

G. A. Flora

## Solano

## DELEGATE

Robert Dempsey

## ALTERNATE

R. Allen

## Stanislaus

## DELEGATE

E. F. Reamer

## ALTERNATE

B. F. Surryhne

## Tulare

## DELEGATE

J. C. Paine, Exeter

## ALTERNATE

C. M. White, Visalia

## Ventura

## DELEGATE

D. W. Mott

## ALTERNATE

Edith Lamoree

## Book Reviews

**The Woman of Forty.** By Dr. E. B. Lowry.  
Published by Forbes & Co., Chicago.

This book expresses the opinion that the age of forty is the turning point in the woman's life. This assertion is based on the author's keen observation and is explained and demonstrated by facts. This volume may serve as a guide in personal hygiene and may convey useful knowledge in this regard to the physician as well as to the lay reader. A. G.

**Fatigue Study.** By Frank B. Gilbreth and Lillian M. Gilbreth, Ph. D. Second edition. Revised. Publ.: New York. The Macmillan Company. 1919.

That fatigue is one of the main predisposing factors in industrial accidents, has long been established as an undeniable truth. From the standpoint of this truism should this book be studied by the physician who is interested in accident prevention in the industrial field. In a most thorough scientific manner is the study of fatigue, its elimination and its prevention, presented in this volume. From all angles is it discussed in this book—waste of time, health and money for the employer as well as the employee. For the physician and persons engaged in public health work this book gives very valuable information. A. G.

**Text Book of Practical Therapeutics.** By Hobart Armory Hare. Seventeenth edition. 1023 pages, illustrated. Philadelphia and New York: 1918. Price, \$5.50.

Occasionally there comes to the reviewer's desk a volume that seems to bring with it the spirit of revisiting and renewing the friendship with an old and valued professor. Such an one is the tried and trustworthy text book of Professor Hare. There have been few changes either in subject matter or in form of presentation in the present edition of this volume and little can be added to the words of approbation that have been called forth on the occasion of each succeeding presentation of the book. Suffice it to say that Professor Hare's text book remains worthily a most valuable and a standard guide for treatment in the hands of thousands of American doctors and occupies a place wherever practical therapeutics are studied or applied. G. H. T.

**Itinerary of a Breakfast.** By J. H. Kellogg. 210 pages. New York and London: Funk and Wagnalls Company. 1919.

This little book is written for the layman. Its idea seems to be to give him some knowledge of gastrointestinal physiology in a simplified newspaper reporter style. Everything is made perfectly clear by beautiful colored diagrams, and the author's main idea is presented at the beginning of the preface. He believes that modern medical research has clearly incriminated the colon as the source of more disease and physical suffering than any other organ of the body. Intestinal toxemia is the most universal of all maladies and the source of this poisoning is the colon "with its seething mass of putrefying food residues." As many know, Kellogg believes that one must move one's bowels at least three times a day or suffer terrible damage. It is a delightful little book for the hypochondriac who loves to scare himself to death. W. C. A.

**Nervous and Mental Diseases.** By Archibald Church, M. D., Professor of Nervous and Mental Diseases in Northwestern University Medical School, Chicago; and Frederick Peterson, M. D., formerly Professor of Psychiatry, Columbia University. Ninth edition, revised. Octavo volume of 949 pages, with 350 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$7.00 net.

Nine editions and sixteen printings sufficiently indicate the opinion of the profession. Apparently this work abundantly satisfies the practitioner, for whom it is chiefly designed. It is really two separate works bound as one, the section on psychiatry being totally independent of the section on neurology, each author responsible alone for his department.

For the physician who may wish to know something about almost any subject in neurology or psychiatry, it is a trustworthy and satisfactory reference, but it is too brief for the student who is looking, as he should, for fundamental information. The limitations of the work are clearly recognized by the authors, and they have included between the covers what they felt was of most use to the practicing physician, and for him the book is eminently satisfactory. E. W. T.

## Correspondence

Received at Stanford Clinics

Feb. 21, 1920.

Too the Doctors at the College. In the latter part off 1911 or the first part off 1912 I was at the college for treatment for my Stomach a certain Doctor prescribed hydrostatic acid and gave me some cascara for physic. I would like to get some of that hydrostatic acid again. It is the only Medicine that will help me, there is no Doctor that can Substitute in place off the acid. I would be very much obliged if you would try and Send me some of the Medicine I don't care what the expence I will pay most any bill If I only can get the Medecine (that is the acid).

YOURS TRULY.

HATS OFF TO TRINITY COUNTY

Weaverville, Cal., Feb. 11, 1920.

To the Editor:—

Enclosed you will find a list of the births, deaths and marriages of Trinity County for the year of 1919—seven marriages, 22 births and 23 deaths.

Thought it might be of interest on account of the longevity of the citizens of Trinity County; with the exception of three, the average age at death was over 80 years; those met death as follows: one from high power current (Fruit); one from powder explosion (Mori), and one died shortly after his arrival from Los Angeles for his health. So if you want to live to a long useful life and enjoy excellent health, climate and beautiful scenery, come to Trinity County, Cal.

Yours truly,

D. B. FIELDS, M. D.

Trinity County Physician and Health Officer.

P. S.—Trinity County sent 10 per cent. of its population to war, went over the top on all bond issues, Red Cross, Salvation Army, Y. M. C. A. drives and sale of stamps, and still we live to enjoy excellent health.

## Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published, but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

CUI BONO?

San Francisco, March 10, 1920.

To the Editor:—

May I ask why the Journal should not discuss editorially the campaign of healing and invasion of medical fields undertaken by the Episcopal Church? First the Emmanuel Movement, then a host of lesser healers, and now James Moore (or less) Hickson. Why should the credulous public always be the victims of mental healers, now outside the church and frankly commercial, now inside the church and with the cloak of other-worldism?

What is the difference between Hickson and Christian Science? He says the latter is diabolical and doubtless the Eddyists would make the same rejoinder about him. He does not recognize the processes of nature which we call disease and Eddyism claims the same. Why should this San Francisco preacher, Boyd, also in the fold of the Episcopal Church, attract large crowds to his church by advertising his health talks (?), and then get as many of these crowds and of his parishioners as he can into his office down-town on week days, at five dollars each? If it is proper and decent for him to do this, why then should not the doctor do the same and advertise his wares of a Sunday so that his reception room will be filled on Monday? It is too bad that a great church should allow itself to be smirched and its mission clouded by the introduction of a system of so-called healing which is foreign to the work of the church, not in accord with the teachings of Christ, and certain to lead to untold charlatanry and imposition on a credulous public. Is it solely to attract the dollars, or is it because the church feels itself losing ground in its own sphere of ministering to the spiritual betterment of mankind.

Very truly yours.

ONE WHO WANTS TO KNOW.

## State Medical Society

### RULES GOVERNING READING OF PAPERS AND DISCUSSIONS AT STATE SOCIETY MEETING

The following rules, which have been adopted from time to time by the Committee on Scientific Program and which apply to the coming meeting of the State Society, are here reprinted for the benefit of those who will read papers and those participating in the discussions.

#### Rules for Authors

1. Time allotted for each paper is fifteen minutes. The only exception to this rule will be the latitude allowed visitors from other states who come as guests of the Society.

2. No motion from the floor to extend the time of the author will be considered by the chairman of any section.

3. Each author will be allowed five minutes for closing the discussion of his paper.

4. Each author must prepare an extra copy of his paper and present the same to the officer



presiding over his section before he will be eligible to read his paper.

5. Absolutely no paper may be "read by title." By consulting the program appearing in this and in the May issue, as well as the special program issued at the state meeting, each author can learn definitely when his paper is due to be read.

6. Failure on the part of an author to appear and read his paper automatically precludes the acceptance of future papers by such author for a period of two years.

#### Rules for Those Taking Part in Discussions

1. Openers are limited to five minutes.
2. Subsequent speakers are limited to three minutes.
3. The privilege of a second three minutes will not be granted to any one.

## County Societies

### ALAMEDA COUNTY

The regular monthly meeting of the Alameda County Medical Society was held February 16 and the following papers were read and widely discussed:

Chronic Complications following Gonorrhea; Their recognition and management. Dr. Geo. G. Reinle and Dr. F. Spence De Puy.

The X-Ray in Therapeutics; Dr. S. A. Jette

The Lav Anesthetist; Dr. David Hader

The following were elected to membership in the Society: Dr. Lucy Ruth Kilgore, Dr. Richard G. Watson, Dr. J. W. Scannell, Dr. O. P. Stowe.

On Saturday, March 6, the County Society met at a Victory Banquet at the Hotel Oakland. There were present a hundred members to do honor to the medical men of the Society who have returned from Military or Naval Service.

The Honorary guests of the evening were Dr. C. A. L. Reed of Cincinnati, who delivered an interesting address upon the advisability of concentrating the nation's Public Health Services under one head; Dr. Saxton Pope of San Francisco, who spoke convincingly regarding the duty of each member of the Society to subscribe to the Indemnity Fund; and Dr. H. A. L. Refkovel of San Francisco, who spoke upon the Public Health problems falling under the control of the League of Nations.

Three highly appreciated vocal selections were, in the course of the evening, rendered by Mrs. Julia Phillips Page, wife of Dr. Clarence Page, and the University of California Quartet rendered four pleasing selections in its customary charming manner.

#### Personal.

Dr. Benjamin Thomas has returned from military service and resumed private practice.

Dr. Elsie Reed Mitchell and Dr. Clara Willoms, both of Berkeley, are among the women physicians who are now doing medical relief work in Turkey and Armenia.

### CONTRA COSTA COUNTY.

At the first regular meeting of 1920 of the Contra Costa County Medical Society held January 31, the following officers were elected: Dr. G. M. O'Malley, president, Crockett; Dr. M. L. Lerondez, vice president; Dr. C. T. Wetmore, secretary; treasurer, Herndes.

Dr. Dudley Smith of Oakland gave a very interesting and instructive talk on the organization, achievements and purposes of the League for the Promotion of Public Health. Several members of this society pledged their support to the cause of the League.

### FRESNO COUNTY

The Fresno County Medical Society resumed its usual activity Tuesday evening, March 2. This being the first regular meeting held since January on account of the prevalence of influenza.

Dr. J. H. Pettis, president, opened the meeting and introduced Dr. Joseph Catton of San Francisco who delivered a scientific paper on malingering.

Dr. Catton spoke of malingering both in civil and military organizations, its prevalence but more particularly of the cost to the nation and the individual industries of the nation. He called attention to the significance of a thorough examination of the supposed malingering both as to his bodily defects but especially to his psychic condition. The speaker drew a very nice distinction between true malingering and hysteria.

Before malingering can be diagnosed the following must be ruled out: 1. Organic disease; 2. Possible aftermath when original injury is completely healed; 3. Hysteria; 4. Fraud must be demonstrated; 5. Psychiatric examination must show absence of psychoneuroses, psychoses, inebriety, mental deficiency and constitutional psychopathy.

The discussion brought forth was lively and has led to suggestions that informal discussions be limited to five minutes each.

Dr. Charles L. Tranter of San Francisco was then introduced and he gave a short but very comprehensive paper on peripheral nerve surgery. The speaker dealt principally with the progress that has been made in this branch of surgery since 1915. Attention was called to some of the important and more recent tests of nerve regeneration particularly Tinel's formication test and muscle reflex.

Dr. Tranter is still in the service and he told of his work with Tinel as well as his work at Foxhill, N. Y.

A discussion of the paper brought out the inadequacy of the older methods of diagnosis.

It having been brought to the attention of the Board of Governors that certain members of the County Society had been called to the bedside of dying Eddvites for the sole purpose of making diagnoses and signing death certificates the following resolution was adopted in open meeting:

It having been brought to the attention of the Board of Governors that such had occurred, it hereby condemns the practice of signing death certificates of christian scientists, all sects, cults or creeds who do not believe in the practice of scientific medicine unless such practitioners have been in regular attendance.

### LOS ANGELES COUNTY.

#### Los Angeles County Medical Association.

Meeting of February 5.

The first monthly meeting took place in the Friday Morning Club at the usual time.

In the absence of the president, Dr. Rae Smith, the vice president, Dr. John V. Barrow, presided.

Dr. Newton Evans gave a very interesting pictorial talk on "Malignant Myomas of the Uterus."

Dr. Manice Kahn read a very interesting paper on "How May We Reduce the Mortality in Appendicitis?"

Dr. H. H. Koons' subject was "Some Observations on the Use of Vaccines and Other Acids in the Treatment of Influenza Pneumonia." His conclusions were:

1. A prophylactic dose will confer immunity from six to eight weeks.
2. As a remedial agent, if given at onset, will materially shorten and lessen the severity of attack and pneumonia will be rare occurrence.

3. If given to pneumonia patient, ameliorates severity of symptoms, hastens crisis, and cuts number of serious sequela to minimum.

Broncho-pneumonia should always be treated inside, protected from exposure to drafts or radical changes in temperature.

### THE LOS ANGELES SURGICAL SOCIETY

Special meeting on February 9th. All members of the Los Angeles County Medical Association were invited.

Dr. Charles Lockwood, the president, introduced Dr. Emil G. Beck of Chicago, whose subject was "The Balance of Power in Immunity."

### The Los Angeles County Medical Association Meeting, February 19, 1920.

The society met February 19, 1920, at 8 p. m., in the hall of the Friday Morning Club.

Dr. Rae Smith, the president, called the meeting to order and introduced Dr. W. W. Duke of Kansas City, to speak on "Glands of Internal Secretion." Dr. Duke said that the glands must be taken together, as they are all interdependent. He illustrated the subject with many striking stereopticon pictures showing typical conditions of infantile myxedema, hyper and hypo-thyroidism, pituitarism and gigantism.

"The Medical Profession and the New Era" was the next subject, read by Dr. Chas. A. L. Reed of Cleveland, former president of the American Medical Association. Dr. Reed advocated the union of doctors so that they may appraise the value of their services to society and exact a fair measure. We have 150,000 members, many nurses, hospitals and sanitariums. The national, state and county societies must effect the maximum organization to investigate compensation for medical services, and this county society should appoint a committee for that purpose. Does the medical group live up to its responsibilities? There are 7000 hospitals without a pecuniary profit, there are medical schools, thousands of poor are visited and the medical profession has served in greater proportion than any other group. Yet the National Health Service is taking orders from the Treasury Department. The Navy Department and the Secretary of the Interior meddle with our work. A single Health Department ought to control. The medical group is subordinated to some overlordship. Medical examiners for insurance companies have made millions for the promoters by working for very little. Shop insurance, the casualty group and such like, dictate the recompense, the Workman's Compensation Act tells what the compensation shall be. The service of medical men is more poorly paid than any other group of society. Dr. Reed referred to the petroleum, the capitalistic and shop groups having each employee examined, all injury given immediate attention, but 300 per cent. more is collected than paid the doctor. He urged solidarity, autonomy of the whole medical group. On the other hand, if present conditions continue, they will lower medical efficiency and society will be the greatest sufferer.

The president, Dr. Smith, thanked Dr. Reed on behalf of the society.

Dr. True spoke of the local condition and the possible menace coming from capitalism, and that we have many issues here. The "School Protective League" is masquerading under this name to strike at all health functions of the medical profession. The State Board of Education has ruled that there is a distinction between health inspection and physical examination. Inspection may be made by teachers, principals, nurses and doctors.

Dr. Duffield reported on behalf of the committee appointed to make a survey of the entire

nursing system. A full report will be made at the next meeting from the standpoint of the doctors. In three hospitals the alumnae association of nurses decided that they would not nurse more than 12 hours a day.

### Personals

Dr. A. O. Sanders, on the civil service list, was appointed as superintendent of the Olive View Sanitarium yesterday by the Board of Supervisors. The sanitarium will open in about two months.

Dr. D. C. Bryant and Dr. G. L. Blanchard, Oculists and Aurists; 716 Broadway Central Bldg., Phone 15509.

Dr. Rex Duncan, Radium and Oncologic Institute; 1151 West 6th Street, Phone Pico 929.

Dr. D. Buie Garstang, Urology; 934-935 Marsh-Strong Bldg., Phone 11204.

Dr. W. H. Mayne, Genito-Urinary Diseases; 917 Brockman Bldg.

Dr. Thomas W. O'Reilly, Roentgenologist; 305 I. N. Van Nuys Bldg., Phone Pico 3979.

### Los Angeles Doctors for State Health Board

Dr. Irving R. Bancroft of Los Angeles was appointed February 28 by Governor Stephens as a member of the State Board of Health, succeeding Dr. W. H. Kellogg.

Dr. Walter Lindley of Los Angeles, head of the California Hospital, which institution he founded, was also appointed to the State Board of Health, succeeding Dr. LeMoyne Wills of Pasadena.

### Illness

Dr. J. Mark Lacey, former medical director of the Los Angeles County Hospital, is ill with septicemia, caused by an injury to his hand February 29, in performing an autopsy.

### Municipal Drug Clinic

Dr. J. W. Nevius will be the head of the clinic to be opened in the Temple Block under the direction of the city and the Federal government. The habit, Dr. Nevius says, is a disease and not a vice. The addicts are not "dope fiends." They do not take the drug for pleasure. These unfortunate patients should have a square deal; many of them can be cured.

### Pomeroy's Ruling Verified

Dr. J. L. Pomeroy, County Health Officer, was confirmed in his ruling requiring health inspectors to note signs of contagious diseases. Superintendent of Los Angeles Schools Susan M. Dorsey says "A new ruling of the State Board of Education distinguishes between health inspection and physical examination. Health inspection may be made by all school teachers, principals, nurses and doctors and no special certification is needed for this work, nor is any excuse allowed from health inspection which consists of the following:

"Note signs of contagious diseases or skin and scalp infections.

"Note signs of defects of eyes, nose, throat, and teeth.

"Measure height and weight and note condition and nutrition.

"The State Board of Education advises and directs that health inspection work, particularly that which relates to the search of contagious diseases, and for the lesser communicable conditions, be carried out."

### MISCELLANEOUS

#### Los Angeles Tuberculosis Association

At the annual meeting of the Los Angeles Tuberculosis Association, February 8, a reorganization was effected and the following officers elected:

Mrs. J. J. A. Van Kaathoven, president; Dr. Charles C. Browning, vice-president; Louis M. Cole, vice-president; George H. Kress, vice-



president; Mrs. Benjamin Goldman, secretary; John P. Burke, treasurer; Mrs. J. M. Danziger, chairman of finance; Dr. W. Jarvis Barlow, chairman of advisory council; Dr. Norman Bridge, president emeritus. Directors are Dr. R. L. Cunningham, Mrs. Danziger, Dr. Donald M. Frick, Oscar Lawler and Dr. Percy T. Magan. Miss Sidney Maguire, executive secretary of the association, in making announcement of the complete reorganization, said:

"The Los Angeles Tuberculosis Association is now on an absolutely efficient basis. The past three years have been devoted to laying the ground work for a great, constructive health program and now we are all 'set for action.' Our money and energies will be given to work along the following lines: administrative, educational, dispensaries and clinics, social service and the direct prevention of tuberculosis among children."

#### Vaccination for Influenza

Vaccination for influenza and pneumonia will be given free of charge at the City Health Department, Fifth and Hope, between 8 and 9 in the morning; Boyle Dispensary, 312 North Boyle Avenue, 12 to 1; County Hospital, 700 Mission Road, Tuesday and Friday at 10 a. m.; University Police Station, 825 West Jefferson, Monday and Thursday, 9 to 10; the University of Southern California Medical College, 516 East Washington, from 1 to 3; and the University of California Medical College, 737 North Broadway, from 12 to 1.

Dr. L. M. Powers, health commissioner of Los Angeles, said, February 19, that the cases this year are milder and appeared to be a decline in the number of new cases.

#### Deaths

Dr. Abraham Feldman, Hammon, Cal., College of Physicians and Surgeons, Los Angeles, 1916; aged 30; a member of the Medical Society of the State of California; Lieutenant U. S., N. R. F., and relieved from other duty July 11, 1919; died January 20, from pneumonia.

Dr. John Walton Ross, member of the A. M. A., Pasadena Cal.; Tulane University, New Orleans, 1868; aged 77; medical director U. S. Navy, retired; died February 9th, 1920.

Dr. Robert Kells Hackett, member of the A. M. A. and Cal. State Medical; Major, M. C., U. S. Army, Los Angeles; Tulane University, New Orleans, 1899; aged 49; died in San Francisco, January 1st, 1920.

Dr. Robert Pooler Myers, Claremont, Cal., Savannah, Ga., Medical College, 1860; aged 80; a member of the Medical Society of Hawaii, and for several years a resident of Honolulu; died January 1.

Dr. Edgar D. Seaman, Los Angeles, Columbia College, N. Y., Oct. 2, 1883; member of the Medical Society of the State of California; age 65; died February 21.

#### ORANGE COUNTY

The regular meeting of the Orange County Medical Society was held at the Santa Ana Public Library on the evening of March 3. The Society was entertained by a very interesting and instructive paper by Dr. A. B. Cecil of Los Angeles. By the use of the lantern slides the doctor illustrated and explained many of the anomalies of the kidney dealing largely with the embryology. A luncheon at James' Cafe closed the meeting.

#### RIVERSIDE COUNTY

The Officers and Delegates to the State Society of the Riverside County Medical Society for the year 1920 are as follows:

President, Bon O. Adams, M. D.; Vice-Presi-

dent, Arthur L. Brown, M. D.; Secretary-Treasurer, Paul E. Simonds, M. D.

Delegates to State Society: L. M. Ryan, M. D., (1920); Alternate, Bon O. Adams, M. D.; Paul E. Simonds, M. D., (1920-1921); Alternate, W. D. Rolph, M. D.

#### SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was held at the Hotel Sacramento, February 17.

Paper of the evening by Dr. C. W. Wahrer on the subject of "The prevention of post-operative vomiting and abdominal distention." Many remedies, which heretofore have been recommended for the treatment of these conditions, have been abandoned and operators now seek to prevent nausea and gas pains, by modifying their technique according to the teachings of Crile and Henderson; shock, nausea, vomiting, distention, are largely contributed to, by rough manipulations of the intestines, tearing of adhesions, too many gauze packs, burying too many ligatures, mass sutures, imperfect hemostasis, and too tight strapping of the abdomen.

Morphine and atropine, with gas-oxygen anesthesia, are highly recommended by the author.

Dr. Fay reported a case of fractured clavicle, the fragments of which could only be held in apposition by the use of a wooden "T" frame, strapped to the back, with adhesive strips connecting the injured member with the cross-arm of the "T."

Dr. Brendel reported a case of complete suppression of urine for 60 hours (post-operative) and now, that the blood-pressure had risen to 300 mm. Hg. there had been a secretion of eight pints in 24 hours.

Dr. Dillon reported a similar case in a multipara (6 months), who went 72 hours with complete suppression, and is now beginning to secrete again.

Dr. Hale reported a case of gonorrheal rheumatism, the urine from the kidneys of whom, showed Gram-positive cocci; lavage of the pelvis of the kidneys, greatly ameliorated the constitutional condition.

#### SAN DIEGO COUNTY

The meeting of the San Diego Society on the 24th of February brought out a goodly attendance and discussed two excellent papers: one by Dr. Thos. O. Burger on "The Indications for and the Technic of Cesarean Section"; the other by Dr. P. M. Carrington on "The Early Diagnosis of Tuberculosis." Both of these papers were of a high order and were liberally discussed.

The meeting of February 27 was in the form of a complimentary banquet at the Maryland Hotel to Dr. C. A. L. Reed of Cincinnati. The Doctor discussed in a masterful manner "The Medical Profession and the New Era," a brief summary of which is herewith appended.

The medical profession was defined as the social group that is devoted to the conservation of human health and life; the new era as the period of time that began with the signing of the peace treaty at Versailles. The chief characteristic of the New Era is political, social and economic change. This is manifested by the rapid evolution of groupism as distinguished from one-time individualism. Groups, both capitalistic and laboristic, are developed for selfish purposes, in the sense that each has for its object the protection of its own material welfare. Of all the social groups the medical group, by which is meant the medical profession, is the only one that has not organized with this object in view. The result is that the status, influence and functions of the medical group are being rapidly subordinated to and appro-

priated by all the other groups, both capitalistic and laboristic. If the medical profession is to maintain its position, discharge its obligations and protect its own welfare, it, like the other groups, must organize with these objects in view. This is a defensive necessity and a progressive duty. It is important, therefore, that every medical society shall bring its membership up to the maximum and must then, by committee, investigate the actual conditions as they exist in the unit territory covered by the organization. Action, and prompt action, should then be taken in the light of the facts thus determined.

The council of the Society reconstructed at a recent meeting its certified milk commission which now consists of Drs. Thompson, Crawford, Pickard, Cleverdon and Baker. The certified milk commission is accumulating information in connection with the general milk supply of the city.

How does Coronado 1921 sound as a convention possibility? The San Diego County Society can at least promise bed and board at a specified rate.

The Society lost a valued member in the recent death of Dr. I. M. Zimmerman.

Dr. E. A. Hensel has returned to town after a recuperative vacation following his long illness. His many friends will be glad to see him in the harness again.

Dr. J. H. Mallery has resumed "civies" and opened offices in the First National Bank Building. The Doctor intends to limit his practice to diseases of the nose, throat and chest.

The following were voted into membership in the San Diego Society on February 28: Drs. Will H. Potter, Wm. I. Kinsley, Felix E. Ashcroft, Walter G. Finley and Leon DeVille.

#### SAN FRANCISCO COUNTY

##### Proceedings of the San Francisco County Medical Society

During the month of February, 1920, the following meetings were held:

##### Tuesday, February 3—Section on Medicine

1. Endemic goitre.—W. J. Kerr.
2. A functional test of the circulation.—Thos. Addis.

##### Tuesday, February 10—General Meeting

1. Moving pictures of peripheral nerve lesions. Transposition of nerves.—H. C. Naffziger.
2. Fighting the cootie. Moving picture from the Surgeon-General's Office, Instruction Laboratory.—Morris Herzstein.

##### Tuesday, February 17—Section on Surgery.

1. Gunshot wounds of the brain.—E. B. Towne.
2. Surgical indications in so-called gastric tetany.—Sol. Hyman.

##### Tuesday, February 24—Section on Eye, Ear, Nose and Throat

1. Demonstration of cases.
2. Fistulae of labyrinth following radical mastoid.—W. B. Smith.
3. Report on several anomalous cases of mastoiditis.—F. M. Shook.
4. Treatment of foreign bodies in the eye.—W. F. Blake.

#### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held on Friday, February 13, at the Hotel Lincoln. Those present were the following: Drs. H. E. Sanderson, J. D. Dameron, C. D. Holliger, H. J. Bollinger, R. T. McGurk, J. E. Nelson, A. H. McLeish, W. C. Adams, F. S. Marnell, S. P. Tuggle, J. P. Martin, Grace McCoskey, L. Dozier, W. F. Priestly, W. T. McNeil, H. C. Petersen, J. T. Davidson, H. Q. Willis, F. J. Conzelman, F. P. Clark, C. R. Harry, L. Haight, Mary Taylor, Emilie Gnekow, Margaret Smythe, Minerva Goodman, B. J. Powell,

D. R. Powell, with Dr. Harold Brunn of San Francisco as speaker of the evening.

Dr. Dameron presented a case, Ring Carcinoma of the Bowel, and Dr. McGurk presented a case history of Syphilis of the Liver. The paper of the evening was presented by Dr. Harold Brunn of San Francisco on "Some Clinical and Experimental Facts Concerning Intestinal Obstruction." He spoke of the influence of mesenteric vessels pressing upon the duodenum and causing a dilation of that portion of the small bowel. By schematic drawings he demonstrated the anatomical features, making this pressure of the vessels possible. He explained why the average case of dilated stomach is really a misnomer and the trouble is due to a dilated duodenum. He spoke of the importance of frequent washings of the stomach and even of the duodenum as treatment of these cases and also the advantage of the knee chest position which would relieve the tension upon the mesenteric vessels.

Following the paper and the discussion thereof, the meeting adjourned to enjoy light refreshments and a pleasant social hour.

#### SAN LUIS OBISPO.

Regular monthly meeting of the San Luis Obispo County Medical Society held Saturday night, March 13, at the Hotel Andrews in San Luis Obispo, eleven members present. After a good dinner at 6:30, President Miller called the meeting to order. Minutes of the two previous meetings read and approved. Application of Dr. C. A. Love of Atascadero favorably acted upon. Dr. W. M. Stover appointed delegate to the State meeting at Santa Barbara, with Dr. G. L. Sobey alternate.

Dr. T. C. Edwards of Salinas then addressed the meeting, his topic being the Defense Fund. Only one member up to this time had been a policy holder in it. Two other members then stated they had sent their checks in within the past two weeks, and at least two others signified their intention of doing so at once.

A new fee schedule was next presented for consideration and after considerable discussion, and a few changes, was adopted. It provides for a general raise in fees of about 20 per cent., which in view of the increased cost of everything, seemed quite fair to the meeting. The secretary was instructed to have fifty copies printed, mail two to each physician in the county, and one to the county secretaries of Kern and Monterey, asking their co-operation in the new prices.

The compensation schedule was next taken up, and the secretary instructed to write the companies doing business here asking for a general raise in rates. He is also to send a fee schedule to each of these companies as a basis for a new scale.

Meeting adjourned at 11 p. m.

Those present were: Drs. Miller, H. M. Cox, Roy Cox, Fossum, Shields, San Luis Obispo; Drs. Dresser, Wilmar, and Sobey, Paso Robles; Dr. C. A. Lowe, Atascadero.

Dr. T. C. Edwards of Salinas and Dr. Waldo Richardson of Atascadero, visitors.

#### SONOMA COUNTY

At the December meeting of the Sonoma County Medical Society the following officers were elected for the year 1920:

President, Dr. F. O. Butler, of Eldridge; Vice-President, Dr. W. C. Shipley, of Cloverdale; Secretary, Dr. N. Juell, of Santa Rosa; Treasurer, Dr. R. M. Bonar, of Santa Rosa.

The January meeting was held at the County Hospital, Dr. Butler presiding.

Dr. Pryor, the County physician, gave some case reports with pathological specimens.

Dr. Butler gave the paper of the evening on



the subject of Tuberculosis. An enthusiastic discussion followed, resulting in the appointment of a committee to confer with a Civic body from adjoining counties, with the object of establishing a Sanatorium for the segregation and treatment of the victims of tuberculosis. Under the advice and guidance of the energetic League officers, we hope soon to have something definite to report.

## Clinical Department

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 3. November 8, 1914. H. F., Male. American, 2 years 9 months.

**Complaint:** Feverishness. Apathy. Rigidity.

**Family History:** No familial disease. There are no other children and there have been no miscarriages. A child had meningitis in the home next door in 1913. Hygiene of family probably poor.

**Past History:** Full term, normal delivery, birth weight 9 pounds. Not breast fed, but given Eagle Brand condensed milk diluted, together with Horlick's malted milk. Development normal.

The child had pertussis in March, 1914. Other than for persistent coryza, the remainder of the past history is negative. The diet has been fairly good and no digestive upsets have occurred.

**Present Illness:** The child had apparently been in good health until 13 days before entry when there developed a coryza, followed in 3 days by anorexia, and a rapidly developing irritability which progressed in 2 days to stupor of varying intensity. The bowels were constipated and there was apparently fever. The day before entry rigidity of the neck developed and a single convulsion lasting one hour supervened.

**Physical Examination:** Well developed and nourished child of two and one-half years, somewhat stuporous, showing a slight bilateral internal strabismus, pupils equal and reacting to light, the fundi showed congestion of the vessels and pallor of the nerve heads. There was evidence of a left sided otitis media, mucous discharge from the nose, herpes about the lips, sordes on the teeth, tongue dry and coated, breath foul. There was marked rigidity of the neck, and some opisthotonus. The heart and lungs were normal. The radial pulse was full, equal, of good volume and tension. The abdomen was negative, as were the genitalia. The extremities were well formed and the tissue turgor was good. Reflexes showed absent patellars, biceps and triceps. Abdominals present. No Babinski or Oppenheim determined. Kernig's sign was inconstantly present, Brudzinski not elicited.

The temperature at entry was 38.4° C., pulse 120 and respirations 30.

Blood count—60% Hemoglobin, 32,000 leucocytes, 6,000,000 erythrocytes. Differential: Polys. 80%; lymphocytes, 15%; large monos. 5%; eosinophiles 2½%; basophiles 3%.

The urine was negative.

A lumbar puncture was done immediately and 8 c.c. of very turbid yellowish fluid withdrawn under very low pressure. No clot formed, but a thick sediment collected in the bottom of the tube in a very short time. Examination of the fluid showed 40,000 cells per cu. m. m. with 95% polymorphonuclears. Nonne ++; Noguchi ++; no reduction of Fehling's solution. There were great numbers of gram negative intra and extra cellular diplococci. Wassermann and cultures negative on this fluid. 15 c.c. of anti-meningococcus serum administered in the spinal canal.

**Treatment** consisted in the twelve hourly injection of from 15 to 30 c.c. of antimeningococcus serum intraspinally—a total for 5 days of 150 c.c. The amount of fluid which could be obtained by puncture, however, rapidly diminished, so that frequently only a few drops were secured. Restlessness was extreme, and convulsions were frequent. On the 5th day therefore, a bilateral trephine opening was made in the temporal region. From 40 to 60 c.c. of rather turbid fluid under greatly increased pressure and containing myriads of intra and extra cellular organisms were evacuated. The cells were 1,395 per c. m. m. in number and were all of the polymorphonuclear variety. Culture demonstrated the meningococcus. Following operation the child was much quieter, but Cheyne-Stokes respiration supervened and ten hours later death occurred.

No autopsy was permitted.

**Diagnosis:** Epidemic cerebro-spinal meningitis.

**Discussion:** This case demonstrates several points of interest particularly in view of the recent advances in the therapy of epidemic cerebro-spinal meningitis as developed during the war. The unquestionable advantage of intravenous therapy has been definitely proven preferably combined with the intraspinal, although in the septicemic variety with few signs and practically clear fluid, the intravenous method alone may be all that is needed. Cases of the type presented were frequently encountered in the army hospitals, both in the United States, and in France, namely, those with blocking, so that small amounts of fluid were all that could be obtained by spinal puncture. It is true that these usually ran a more protracted course and required more serum, but results were nevertheless good in a large percentage of cases by means of the intravenous administration of the serum.

The technic as employed in the army, so thoroughly proven in its efficacy in the southern epidemic, demonstrated its value most thoroughly. This consists in the performing of a diagnostic puncture immediately on entry. If the fluid is cloudy, serum is administered both intraspinally and intravenously—in adults—30-45 c.c. intraspinally and 60 c.c. intravenously. This is repeated for 4 doses, at intervals of 12 hours. The further treatment depends upon the course of the disease—the interval is usually lengthened to a combined injection each 24 hours, being entirely discontinued as soon as possible, since there is a very definite danger of too prolonged injections. The criteria for discontinuance consist in the condition of the spinal fluid, the subjective and objective symptoms and signs, or both.

In the case of clear fluid at the primary puncture, intravenous medication alone is administered and fluid is removed simply for pressure signs. It must not be forgotten to warm the serum to body heat, and to give a de-sensitizing dose of 1 c.c. subcutaneously one hour before administration.

During the war in the English hospitals, grouping of the organism was carried out and the particular serum injected. But while they thus reduced the mortality considerably, they neglected to combine with the intraspinous, the intravenous therapy. This, therefore, offers further possibilities, although time is necessary for the typing of the meningococcus and it is precisely these first few hours—namely, the first 48 hours after the patient comes under observation—that are the most important and require intensive treatment. Frequently enough it was seen that these first 4 doses were sufficient and no more were needed.

The danger of performing lumbar puncture in cases of meningococcus septicemia in actually causing an infection of the meninges by an as yet

improved pathway (filtration, trauma, or contamination of the spinal blood vessels) has been recently raised. It is true that a spinal fluid at first clear, later frequently becomes turbid during the course of the disease. The question of infection of the meninges has not been absolutely proven as yet and hardly justifies the use of the intravenous route to the exclusion of the intraspinal.

## GLEANINGS FROM A YEAR OF COUNTRY PRACTICE.

By WILLIAM B. SMITH, M. D., Kernville, Calif.

That there may be no doubt that the title is correct, let me say that my territory covers a stretch of mountain country and valleys, sixty miles east to the desert, forty miles south to the railroad, thirty miles west to the edge of the San Joaquin foothills, and thirty miles north into the high Sierras. In all this area there is a census population of over one thousand souls, ranchers, miners, trappers, and Power Company employees. The health of the community is rather oppressive to an ambitious young medico, but to tide over the slack times, many of my families pay two dollars per month "dead or alive," and get the benefit of a 25 cent mileage rate instead of the \$1.00 rate paid by those of less foresight. And let me say that my experience teaches me that any man starting without financial or professional backing will save years of debt, discouragement, and health-destroying worry, if he will be content to look for just such a country location where he will find need of his services, instant appreciation, and a sure living for himself and family.

And let the high lights of my past year go to show that he will not have wasted his time nor his training either. So listen to my gleanings:

Dec. 1918 to Jan. 15, 1919. Influenza epidemic of 85 cases, twenty-five whites with one pneumonia and death; 60 Indian with five pneumonias and five deaths. I stepped into one Indian shack without a mask and found sixteen cases bunked around on the floor of the same room, all coughing and spitting on the floor. I stepped out and put on a good thick gauze mask and then waded into them. Only one of this disgusting bunch had sense enough to die. Not a single Indian survived who had Pneumonia following his Influenza. There has been no recurrence among them this Winter of 1919-20.

Jan. 15 to Feb. 8. Nothing stirring, health of community disgustingly good. Few office calls. Bought a 160 acre ranch to fill in spare time. Hired rough neck to do the heavy graft.

Feb. 9. Call to ancient abandoned county seat to ease the itch of a case of chronic eczema. History of "stroke" at age of forty, followed by left-sided paralysis and development of "fish scale skin"—how I wished I could have transported him back ten years and into Old Daddy Hyde's skin clinic for a classical dissertation of the differential diagnosis—chronic scaling eczema, ichthyosis, tertiary syphilides, and fading off with summaries on psoriasis, lichen planus, and pityriasis. From then on I eased the old fellow's days by liberal

orders of "hop"—and if the dying blessing of such an old scalawag is of any value—I have it!

Feb. 21. Primipara—8-pound boy, complete breech. Had husband put her to sleep, did a version maneuver, brought down the feet and did an extraction. All O K and every one happy!

Feb. 22 to March 21. Nothing much doing. Got into overalls mostly and helped "Rough Neck" put in winter grain. Calloused hands—but developed enormous appetite.

March 22. Another primipara, this time with contracted and deformed pelvis. Had choice of high forceps, or version and extraction. Chose the latter, but had difficulty, lost time, shut off the cord in the process of version, got a dead baby. Advised this girl to have one more baby and have it by Caesarian and get herself sterilized at the same time. Six months later she came in again pregnant—in poor health—I gave her a lecture that withered her eyebrows, then aborted her.

March 23. Mexican breed came in for cough, medicine for six months' old baby. Later he called me when I was out—when I got back found the baby dead,—gastro-enteritis. I unwisely salvaged my cough medicine, which had not been paid for. Later the "breed" spread the story about that I killed his baby with the wrong medicine, which was so hot that a drop spilled on the floor burned a hole in the wood. Three months later I had my come-back when the "breed" had a runaway and smashed up himself and whole family. Before I would touch any of them I made him eat the former malignant story. He has been a "good Indian" ever since.

To April 15. Mostly farming, but to vary things a little, took out a Slaughtering License, and started the "Rough Neck" into butchering cattle for meat for the district. Quite some success at it too.

April 15. Primipara, big husky country girl, but eighteen hours of hard labor did not start things. Found a flat pelvis with the head jamming forward against the Os Pubis—no progress—did a high forceps—everything O K.

May 4. Big fat multipara in labor thirty-six hours with pains averaging thirty minutes apart. No reason for interference—finally one pain brought the head down on the perineum, and the next pain produced the baby. Three days' time—three ten mile trips—and they howled their heads off at a \$60.00 bill—but paid it!

May 30. Primipara—three months pregnant—hyperemesis gravidarum—intractable—called consultant from Los Angeles—who advised medical treatment—apparently good results for some days—then coma—aborted with apparent relief—lower lobe congestion—death.

To July 12. Professionally quiet—agriculturally busy, mostly in overalls in the hay field.

July 13. Power Company case of man squeezed between truck and water trough—sick to his stomach a few minutes—then drove on to camp—felt somewhat ill. I took him to the hospital where



he was under constant observation—no soreness, no temperature, no complaint except constant vomiting of everything taken into stomach, and a gradually mounting pulse rate. Second day I advised exploratory operation but patient refused, and symptoms did not seem to warrant anything but watchful waiting. Third evening the man screamed out with pain and in less than half an hour was dead. Permission for post mortem was obtained from the coroner—findings: Liver—dark blue as from general bruise and a three inch rupture along the great vessels of the hilus; about a pint of bloody fluid in the abdomen; Ileum, about two feet from cecum was torn away from the mesenteric attachment for four inches and the part gangrenous—no pus in abdomen and no adhesions. Immediate death from embolism of the heart.

But space forbids me going on in this strain indefinitely, so let me end with a contrast in baby cases.

December 10. Primipara, a big healthy young girl full of life and "pep." She got up at 6 o'clock on the 10th, cooked her husband's breakfast. At 7 o'clock her bowels moved. At 7:30 they moved again. At 8:00 they felt as if they wanted to move again which seemed rather queer to the lady—but they did move, yet to be safe she reported to me. I got on the job in a half hour and she had one unmistakable labor pain, and the baby was in the bed, an eight-pound girl. So life and work goes in the country.

## Medicine Before The Bench

In this column will appear with appropriate comment, from month to month, court decisions and proceedings affecting the various phases of medical practice, the conduct of hospitals and the enforcement of public health laws.

### BOARD OF MEDICAL EXAMINERS AGAIN UPHELD

Dr. John K. Suckow of Los Angeles was tried and found guilty by the Board of Medical Examiners for unprofessional conduct. His license was suspended for one year.

Dr. Suckow attacked the board's authority and decision in the Superior Court of Los Angeles County, alleging that the suspension of his license was in excess of the jurisdiction of the board, and that the law under which the board purported to act was unconstitutional; that the complaint against him was insufficient and the charges were not proven.

This array of objections was overruled by Superior Judge Jackson of Los Angeles, and the action of the board sustained.

Dr. Suckow appealed from Judge Jackson's decision, and the Appellate Court, in a decision handed down by Justice Shaw and concurred in by Justices Lawlor and Olney, has affirmed the procedure of the board in every particular, declaring the Act of 1913 regulating the practice of medicine as constitutional.

The constitutional character and power of the Board of Medical Examiners, and other similar boards are frequently questioned by those receiv-

ing or fearing adverse action. The Appellate Court disposes of this familiar objection to the board in these words: "It is now well established in this State that tribunals such as the Board of Medical Examiners or other boards empowered to revoke licenses which they have previously granted, for cause defined by the law, are not courts in the strict sense; they are not exercising 'the judicial power of the State' as that phrase is used in the constitution conferring judicial power upon courts, and that statutes creating such boards and conferring upon them such powers are constitutional."

To criticize the board and charge it with arbitrary action indicates ignorance or prejudice. Those who are informed know that whenever the Board of Medical Examiners exercises quasi-judicial power that its decisions are subject to review by the courts. The courts are open to others just the same as they were to Dr. Suckow.

The chief points raised in the case, as the decision cites, were raised in the case of *Lanterman v. Anderson*, 36 Cal. App., 472, and were decided adversely at that time. Roy S. Lanterman's license was revoked in 1916, after the board heard testimony relative to a criminal abortion.

As an interesting coincidence of the Appellate court's reference to this case, the board has just received a petition to restore the license of Lanterman. The petition urging the board to take favorable action is signed by prominent residents of La Canada who, doubtless, are not familiar with the court record.

## State Board of Medical Examiners

### COLLECTED CLIPPINGS ON MEDICAL LAW ENFORCEMENT

Dr. A. J. Landis, well-known physician of Chico arrested January 13, 1920, charged with violation of the State drug laws in the illegal sale of narcotics.

A similar charge was brought against Dr. Landis in April, 1911, but dismissed.

Chico Enterprise, 1/8/20.

Linden T. D. McCash, chiropractor (one of the incorporators of the Alameda County chiropractic association) was held to answer to the Superior Court on a charge of violating the medical act. Bail in the amount of \$100.00 was furnished by Mrs. J. Stitt Wilson, wife of the former mayor of Berkeley and Mrs. Ben. Wilson.

Berkeley Gazette, 1/14/20.

County Health Officer Pomeroy of Los Angeles swore to a complaint on January 8, 1920, charging Dr. James A. Gafford of Huntington Park for alleged failure to report two births, which by law must be reported within 36 hours.

Los Angeles Express, 1/8/20.

Poo On and B. T. Gum, Chinese herb doctor's of Modesto arrested for traffic in narcotics.

Modesto Herald, 12/30/19.

Each was recently arrested for violation of the medical practice act for the second time in three months.

Fresno Republican, 1/21/20.

The trial of Poo On, Chinese herb specialist of Modesto, charged with practicing without a license, is set for February 25, 1920. He is represented by former Assemblyman Maddux.

Turlock Tribune, 1/16/20.

The following licensed practitioners of California have been cited to appear before the Board of Medical Examiners at the meeting in Los Angeles, February 17, 1920, to show cause why their license should not be revoked:

Steele, Gertrude F., Los Angeles, (Naturopath);  
McMath, J. G., Gardina, Cal.;

Palmer, Harry, Compton, Cal.;  
Walters, H. S., San Luis Obispo, Cal.;  
Lochman, Wm. H., Los Angeles, Cal.;  
Seiffert, John N., San Diego, Cal.

Los Angeles Times, 1/14/20.

Frank M. Silva, prohibition enforcement officer for California reports he has the names of several doctors who had proposed to open small pharmacies for the purpose of dispensing whisky at high prices.

San Francisco Call, 1/20/20.

Dr. Herman Silverman of Los Angeles, recently released from Patton Asylum, was recently arrested on a Federal indictment of 1918, charging that Dr. Silverman had professed to treat certain diseases and operated in conjunction with another man who made blood tests.

Los Angeles Examiner, 12/26/19.

Mary Sovinez, nurse of Los Angeles, arrested by Special Agent O'Connell, Board of Medical Examiners, January 15, 1920, charged with performing an illegal operation on Vera Cox, aet. 21.

Los Angeles Herald, 1/15/20.

The Los Angeles Record of January 21, 1920, prints a publicity advertisement for Francis Truth, healer, who but a few months ago paid a fine of \$300.00 into the court of Los Angeles and in addition had imposed a 180 day suspended jail sentence for practicing without a license.

Vita-Science is a new drugless cult prescribing "at sunrise one should breathe through the right nostril, the breath should change hourly on going down of the sun, one should be negative—one can learn to change his breath at will, either by placing the pit of the arm over the back of a chair, allowing the arm to swing lifeless while slowly counting and directing the breath from one nostril to the other—"

Los Angeles Times, 12/28/19.

Dr. Irving L. Ward, Yreka, indicted by the grand jury charged with criminal practice at liberty on \$2,000 bail.

Yreka News, 12/18/19.

A charge of habitual intemperance against Dr. I. L. Ward, was dismissed by the Board of Medical Examiners at the October meeting.

Sarah J. Williams, a nurse of Los Angeles, arrested by Special Agent O'Connell, Board of Medical Examiners, charged with murder of Elsie Allen of Ontario, Cal. She was acquitted on a similar charge in the case of Lucille Halley who died December 16, 1919.

Los Angeles Examiner, 1/22/20.

Dr. H. S. Walters, San Luis Obispo, was acquitted in the U. S. District Court, Los Angeles, of the charge of using the mails in connection with illegal operations.

San Luis Obispo Telegram, 12/22/19.

The Board of Medical Examiners received four petitions criticizing the arrest of Alameda County and Contra Costa County chiropractors charged with practicing without a license, signed by 150 protestants as against 600 reported signatures by attorney Geo. Gelder, former Assemblyman of Oakland, as noted in the San Francisco Examiner of January 23, 1920.

### CHIROPRACTOR FOUND GUILTY

Following a series of vicious advertisements in certain Los Angeles newspapers, in which he called for help from members of Christian Science churches, Public School Protective League, Anti-Vaccination Society, American Medical Liberty League, etc., E. Bernard Hubley, chiropractor of Los Angeles, who calls himself "Back-Bone Hubley," was found guilty of practicing medicine in violation of the laws of California.

"According to the testimony before the jury," says a morning newspaper of Los Angeles, "that found him guilty, Thursday afternoon, Hubley has been practicing chiropractic in this city without a license from the State Board of Medical

Examiners. For a defense Hubley claimed that it was impossible to obtain a license and that he was not practicing medicine in any form. The jury debated for an hour before finding the defendant guilty.

"Police Judge Richardson, after suspending the 180-day jail sentence, placed Hubley on probation for two years and stated 'you must discontinue this practice until the State Board of Medical Examiners recognizes your style of treatment and issues the necessary license to practice.'"

### COURT DECISION REGARDING LOCATION OF A TUBERCULOSIS HOSPITAL

In a suit to enjoin the city of New Orleans from establishing and maintaining a tuberculosis hospital in the city, one of the objections of the plaintiffs, who lived in the vicinity of the proposed site, was that the hospital would endanger their health. The Supreme Court of Louisiana did not take this view. The court said:

"If it were proved with certainty that this hospital would endanger the health of this plaintiff or his family, perhaps a case might be presented for judicial interference. But the very opposite is conclusively shown by the evidence, which is all one way to the effect that a well-kept tuberculosis hospital is not a menace to the health of the people living in its vicinity; and the presumption is that this hospital will be well kept.

"Our conclusion is that the suit is groundless in so far as it is sought to be founded on the apprehended injurious character of the proposed hospital."—(U. S. Public Health Reports.)

### Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Twenty-five barrels of whisky form the nucleus of a new pharmacy to be opened in this city. If the owner can get the necessary permit he will add a barrel of brandy, a barrel of gin, a barrel of sherry, a barrel of port and about \$250 worth of drugs and will thus be fully equipped for business. A prominent retail grocer is seriously considering opening a drug department in order to dispose of the wines and liquors on hand. A corporation having 200,000 gallons of whisky is purchasing small drug stores for the purpose of disposing of its holdings.

These items are not clipped from the pages of a comic weekly but are positive facts. They would be really funny excepting that they offer ammunition for those who would deprive the physician of the privilege of prescribing alcohol in any form and who would even go so far as to prevent the use of alcohol in the manufacture of all pharmaceutical preparations, including elixirs, tinctures, etc. Fortunately, the physician can solve this problem without any difficulty. A physician writing a liquor prescription must give the name of the druggist who is to fill it and it can be filled only by that druggist. If the physician will, therefore, send his prescription to the druggist whom he has been in the habit of patronizing, he will put a stop to the drug store for liquor only. He may be fairly certain that a liquor prescription sent to any reputable druggist will be filled with a fair quality of pure whisky.



His patient may not get a fancy brand but a fancy brand is not needed for medicinal purposes. There still remain a small percentage of physicians who will write liquor prescriptions for revenue only and who will be only too glad to work in conjunction with the liquor store masquerading as the drug store. However, this traffic will soon be stopped by the constituted authorities and, furthermore, it is probable that an agreement between such a physician and such a druggist will be looked upon as conspiracy against the laws of the United States and subject to severe penalties, including a long term of imprisonment.

Many physicians do not seem perfectly clear regarding the difference between alcohol, non-beverage alcohol and denatured alcohol.

Alcohol distilled previous to September 9, 1917, could before prohibition went into effect, be used in the manufacture and form the basis of most of the blended goods on the market. If used for these purposes, it paid the beverage tax which was higher than the non-beverage tax. Alcohol distilled after the 9th of September, 1917, could not be used for the manufacture of beverages. It was known as non-beverage alcohol and paid a smaller tax than beverage alcohol. Chemically it was identical with beverage alcohol and was made different by the Act of Congress. Since prohibition has gone into effect there is no beverage alcohol. All alcohol is non-beverage and cannot be sold indiscriminately to the public until it has added to it certain substances which render it unfit for beverage purposes. It, however, pays a tax of \$2.20 per proof gallon.

Denatured alcohol is alcohol to which has been added wood alcohol and some substance like pyridine which gives it a very bad taste. It is a violent poison and owing to the wood alcohol is poisonous even when rubbed on the skin. It therefore should be used only as fuel, for making varnishes, cleansing compounds, etc. Physicians must be careful not to tell patients to use denatured alcohol for removing stains, etc., from the skin as if used for this purpose it is not alone dangerous, but illegal.

Mercurochrome has been admitted to the N. N. R. It has been employed in G. U. work with apparently very good results in some cases. However, in accepting it the council emphasizes the fact that the work is still in an experimental stage and physicians should remember this in using it.

Iodoleine — Dubois' — Iodized poppyseed oil — seems to be a substitute for iodopin. Iodopin has been off the market for some time. Iodoleine may be used whenever iodides are indicated as in the past with iodopin.

Phenonephthalein. The Council publishes a formidable list of preparations whose efficacy depends wholly or in part upon phenonephthalein, though it has not been shown that phenonephthalein is innocuous. It seems at present to be the favorite laxative and is being exploited by pharmaceutical manufacturers in tablets or pills with fancy names. Some of these are sold to the public direct and seem extremely popular. Others are offered to the medical profession in an ethical manner. As some of these combinations are undoubtedly excellent, it is not surprising that the physician finds it easier to write out some fancy name such as Thalcoe instead of writing the formula in full. Unfortunately, he gets into the habit of using Thalcoe even when it doesn't exactly answer his requirements and as his patients soon learn that he is using this, they begin to take it without his orders and give it to friends, and ere long the manufacturers get out a vest pocket package and the ethical proprietary becomes a profitable patent. There are many preparations which the council will not admit to the N. N. R. but which seem sufficiently important to deserve

a place where a physician can learn their properties. On this account, the council has decided to add to N. N. R. a list of preparations described but not admitted. Many of these are refused a place in N. N. R. because the therapeutic claims seem unwarranted. Among these are Apothesine (Parke, Davis & Co.) and Dial "Ciba." Pneumo-Strep-Serum (Mulford & Co.). Chlorazyl is Cinchophen Hydrochloride and is used practically the same as Cinchophen.

Barbital (Veronal) is a drug which was presented in a purely ethical manner to the medical profession and exploited to the general public in the same way as phenacetine and aspirin. A mass of clinical evidence, almost entirely German, was adduced to prove that Veronal was 100% good and could do no harm, that nobody ever could get the Veronal habit or suffer any inconvenience from the use of this drug. The laity soon began to use Veronal tablets and today the Veronal business has grown to alarming proportions. The following is an extract from the Journal A. M. A., Feb. 21, 1920, p. 554:

"Addiction: The constant use of even small doses of barbital (veronal) affects the central nervous system. Those taking the drug habitually become much debilitated and seem less able to stand moderate doses. Death has occurred from a 3 gm. dose in addicts."

Dionol. The Glorified Petrolatum. The exploitation of Dionol is based on the theory, (1) The brain is a generator of neuro-electricity; (2) The nerves are the conductors of this electricity; (3) This results in an "escape of neuro-electricity"; (4) Wherever there is local inflammation, the nerves are short-circuited owing to a breaking down of the insulation resistance of the nerve sheaths; (5) This results in an "escape of neuro-electricity"; (6) Dionol coats the nerve sheaths with a non-conducting layer, and this restores the insulation and "stops the leak." Whether this theory was invented to give a "reason for being" for Dionol, or whether Dionol was first invented and it became necessary to evolve a theory that would give some plausibility to the claims made for this etheralized petrolatum, we are unable to say. In any case, the theory and the product are exploited together. The value of the "case reports" sent out for Dionol may be estimated from a report featured under the heading "Infected Wound" signed "Dr. W." This "Dr." appears to be an osteopath whose specialty, according to his advertisement in his local newspaper, is "Catarrhal Deafness and Hay Fever, Acute and Chronic Cases." (Jour. A. M. A., Feb. 7, 1920, p. 410.)

Hypno-Bromic Compound: A Vermont physician reports that Hypno-Bromic Compound manufactured by H. K. Wampole and Co., is sold by druggists without prescription, though it contains in each ounce: cannabis indica, 1 grain; morphine  $\frac{1}{4}$  grain; potassium bromide, 48 grains; hyoscyamus, 1 grain; chloral hydrate 96 grains. He writes that he has three young women who have become addicts to the preparation as a result of thoughtless prescriptions from physicians. By visiting the various drug stores in town, these addicts have been able to obtain an ample supply of the preparation. Hypno-Bromic Compound is more than an unscientific mixture; it is a dangerous product that should not be sold indiscriminately over the drug counter. Physicians who prescribe such mixtures and druggists who indiscriminately sell such stuff are disgracing two honorable professions. (Jour. A. M. A., Feb. 7, 1920, p. 410.)

The recent history of Benzyl Benzoate, at least in this section, seems to indicate the danger in presenting any medicament to the general physician until it has been thoroughly tried out by competent men in large clinics. Macht studying the

chemical structure of opium alkaloids noted that they fall chemically and pharmacologically into two groups—those having a pyridine nucleus, acting on the smooth muscle like morphine, and those having Benzyl nucleus, acting on the smooth muscle like papaverine. He therefore concluded that synthetic compounds with Benzyl nucleus might work physiologically like papaverine and his experiments seemed to show that even such simple derivatives as the Benzyl Esters have this action. There seems to be no doubt that his laboratory experiments were correctly carried out and his conclusion was apparently justified.

The color chemists have established some close connection between the structure of the dye stuffs and their tinctorial properties by substituting one chemical radical for another and have been able to change the shade, or even the color, at will and have thus played upon a group of dye stuffs as an expert pianist does upon his instrument. They have found, however, that the simple mother substances have no tinctorial properties or have them only in a mild degree. It would, therefore, not have been surprising had Macht found that the simple Benzyl derivatives do not act like the complicated alkaloids.

The medical profession generally paid no attention to Macht's work until a pharmaceutical house issued circulars and exploited Benzyl Benzoate in an ethical manner. No claim was made that Benzyl Benzoate was really a new product of this house, although many physicians thought it had been discovered by them. The result of this advertising was the very large use of Benzyl Benzoate. The G. U. men seemed rather disappointed as most of them quit prescribing. It was then used for other affections of the smooth muscle, for paroxysms of the smooth muscle but here again most physicians were disappointed. At present Benzyl Benzoate is used to a very limited extent and is in danger of being entirely forgotten.

The work of Macht undoubtedly shows that Benzyl Benzoate is useful in some cases and it remains for the pharmacologist or the clinician, probably the latter, to work out the details.

Let us hope that pharmacologists will give this matter the attention which it deserves and not allow these substances to fall into disuse because they have not lived up to the hopes of many who have used them perhaps when they were not indicated.

## New Members

Watson, Richard G., Oakland.  
 Kilgore, Lucy Ruth, Oakland.  
 Forshay, A. W., Oakland.  
 Powell, Mary, Oakland.  
 Nelson, Fred H., Los Angeles.  
 Cook, E. D., Pasadena.  
 Jones, O. C., Los Angeles.  
 Renfrew, J. B., Los Angeles.  
 Van Denburg, R. H., Los Angeles.  
 McKee, W. Clifford, Los Angeles.  
 Gunness, K. C., Los Angeles.  
 Sturgeon, Chas. T., Los Angeles.  
 Smart, Elliott P., Los Angeles.  
 Shumann, J. R., Los Angeles.  
 Garstang, D. Buie, Los Angeles.  
 Farr, Margaret E., Los Angeles.  
 Evans, J. G., Los Angeles.  
 Toland, C. G., Los Angeles.  
 Anderson, Jennie H., Eureka.  
 Jenkins, R. B., Los Angeles.  
 Aronchik, Bernard, Los Angeles.  
 Reed, J. Ross, Los Angeles.  
 Waterman, C. O., Los Angeles.  
 Steinberg, James, Los Angeles.  
 Cooke, Harry T., Los Angeles.

Dunlop, John, Los Angeles.  
 Downs, Jorah M., Los Angeles.  
 Irwin, John C., Los Angeles.  
 Bennett, Edward C., Covelo.  
 Lenker, W. D., San Bernardino.  
 King, Willis E., San Francisco.  
 Burlingame, R. W., San Francisco.  
 Crawford, A. S., San Francisco (in China).  
 Angermann, E. H., San Francisco.  
 Barkan, Adolph, San Francisco.  
 Boldemann, Lillian, San Francisco.  
 Bronson, Edith, San Francisco.  
 Burnham, W. P., San Francisco.  
 Cordes, F. C., San Francisco.  
 Gunville, Jos., San Francisco.  
 Huebner, G. A., San Francisco.  
 Nolan, T. J., San Francisco.  
 Owen, Ethel D., San Francisco.  
 Perkins, W. A., San Francisco.  
 Reilly, Wm., San Francisco.  
 Taussig, Laurence, San Francisco.  
 Taylor, F. B., San Francisco.  
 Tomlinson, R. F., San Francisco.  
 Clay, Harry E., San Francisco.  
 Frick, Euclid B., San Francisco.  
 Koefod, Hilmar O., San Francisco.  
 Richter, Ina M., San Francisco.  
 Towne, Edward B., San Francisco.  
 Stover, W. M., San Luis Obispo.  
 Newell, Robert, Santa Barbara.  
 Henderson, H. R., Santa Barbara.  
 Jean, G. W., Santa Barbara.  
 Pritchard, J. L., San Jose.  
 Conroy, T. F., Santa Cruz.

### Transferred.

Stowe, O. P., from Marin County to Alameda County.

Scamell, J. W., Sonoma County to Alameda County.

Diepenbrock, A. B., from Sacramento County to San Francisco County.

### Resigned.

Dodsworth, Robert M., Long Beach.  
 Slabaugh, Warren H., Los Angeles.

## OBITUARY

There died at Livermore on March 9th Dr. Emile Schmoll, one of the ablest physicians that California has seen. He was born at Basel, Switzerland, in 1873, of Alsatian parents, who emigrated after the War of 1870. After getting his medical training in Basel and Strasburg, he had the good fortune to become an assistant of Naunyn, one of Germany's greatest physicians and a pioneer in the study of metabolism. In this clinic Dr. Schmoll became an excellent physiological chemist. He did some valuable research work on uric acid and became a recognized authority on gout. After several years spent in this way, he studied in France and later in England, where he had an enormous experience in a large London clinic. For a while after coming to America he was at Johns Hopkins. He moved to San Francisco in 1904 and went to work in the Cooper wards at the City Hospital. It was while working there that he was arrested by the late Dudley Tait for practicing without a license. It was characteristic of Schmoll's bigness of heart that when he realized that this arrest was due purely to the excess of Tait's zeal in a good cause, he promptly forgave him and afterward counted him among his best friends.

About 1908, he was very much discouraged over his inability to get a practice and was planning to leave, when things suddenly began to come his way. From that time onwards, patients flocked to him in ever increasing numbers until he had one of the best clienteles in the city. As this sudden rise to fortune has been an inexplicable puzzle to many of his confreres, it might be of



interest to analyze some of the factors which contributed to his success. There may have been at first one little factor of luck. Out at the City Hospital in 1905 was an interesting old Irishman, badly crippled with the gout. When Schmoll got him back on his feet, this man in gratitude hurried to see his old employer, one of San Francisco's millionaires, who was also suffering with gout. Soon the millionaire got relief, and it was not long before all the sore feet in the



Pacific Union Club were hobbling toward the door of an obscure physician on Sutter Street.

They found a man who, to begin with, had great innate ability and a great capacity for hard work. In his early days in San Francisco he would study until one or two in the morning and yet be able to wake refreshed and strong at seven. He was a voracious reader in three languages, not only in the field of medicine, but also in literature and art. His memory was wonderfully retentive even for details. His great success was due in large part to the fact that he prepared thoroughly before he began private practice. He knew well the basic sciences; he thought about his clinical problems in terms of deranged physiology; and his wide reading kept him ahead of his time. Thus in 1910-13 he worked out in his own laboratory practically all the essential points of the now famous Allen treatment for diabetes. Unfortunately the pressure of work made him delay publication until it was too late. He was keenly interested in focal infections in 1909, long before the average man had heard of them. He understood the dietetic principles underlying the art of overfeeding and of reduction at a time when there was almost nothing written in English on the subject. He was probably the first in San Francisco to study all his gastro-intestinal cases with the X-ray. He was also probably the first to get from Europe modern apparatus for radioscopy. In 1912 such instruments were not to be had in America. He was also an expert in obtaining simultaneous pulse tracings from the heart and various blood vessels; and he was well known for his ability in treating heart disease. He was also an excellent neurologist. His work was thorough, and he absolutely refused to give an opinion unless he could examine the patient carefully. It is remarkable that in addition to his scientific knowledge of medicine, he showed great skill in the art of treating patients. He was expert not only in the administering of drugs, but in

inspiring the patient with that hope and confidence which so often is essential for recovery. This was all the more remarkable in view of the fact that some of his eccentricities prejudiced many people against him at the start.

Those who looked past these peculiarities saw kindness, honesty and a certain naivette and simplicity which were charming to those who knew him well. These faculties won for him a host of friends among his confreres and patients. It is a pity that his remarkable mind should have become deranged as it did. It is perhaps even more unfortunate that the insidious disease which was eventually to undermine his reason began to change him in the winter of 1912. After that time he lost much of his interest in scientific medicine, his strength began to fail him and he was seldom seen at medical gatherings. Hence it is that those who would estimate correctly his character and ability must think of him as he was before 1913.—W. C. A.

## Deaths

Seaman, E. D. A graduate of Physicians and Surgeons, New York, 1883. Licensed here, 1887. Died in Los Angeles, February 22, 1920. Was a member of the Medical Society State of California.

Schmoll, Emile. A graduate of University of Basle, Switzerland, 1895. Licensed in California, 1904. Died in California, March 10, 1920, age 46.

Hieber, Harvey G. A graduate of Northwestern University Medical School, Illinois, June 18, 1903. Licensed in California, 1918. Died January 17, 1920, in Monrovia, California.

Sawyer, Herbert Carleton. A graduate of University of California, 1881. Licensed, 1882. Died in La Jolla, Calif., March 3, 1920.

Feldman, Abraham. A graduate of College of Physicians and Surgeons (University of Southern California), 1916. Licensed in Calif., 1916. Died in Hammonton, Calif., January 20, 1920, from pneumonia, age 30. Was a member of the Medical Society, State of California.

Waterman, Oscar M. A graduate of Med. Dept., State University of New York, 1897. Licensed in California, 1914. Died in San Francisco, February 27, 1920.

Horn, Henry. A graduate of Cooper Medical College, San Francisco, 1897. Licensed, 1898. Died in San Francisco, March 5, 1917.

Stewart, Dudley W. A graduate of Northwestern University Medical School, Chicago, 1861. Licensed in California 1887. Died in Los Angeles about January 1, 1920.

Cherry, Edwin M. A graduate of Cooper Medical College, California, 1899. Licensed in California 1899. Died in San Francisco January 30, 1920.

Lake, E. H. A graduate of St. Louis Physicians and Surgeons, 1895. Licensed in California 1895. Was buried at sea January 28, 1920.

Brodie, Benjamin Pitcher. A graduate of Michigan College of Medicine, Detroit, Michigan, 1884. Licensed in California 1918. Died in San Francisco January 23, 1920.

Ballance, Wm. Pell. A graduate of University of Baltimore, Md., 1873. Licensed in California 1901. Died in Los Angeles January 5, 1920.

Browne, Agnes Mary. Oakland, California. Died in San Francisco January 13, 1920. Was a graduate of the College of Physicians and Surgeons, San Francisco, 1918.

Young, Wm. Rutherford. A graduate of State University of Iowa, 1893. Licensed in California July, 1919. Died in Long Beach, California, December 22, 1919.

Davis, Andrew P. Died in Los Angeles, California, December 19, 1919. Was a graduate of the Rush Medical College 1867, also Pulte Medical College 1877. Licensed in California 1885.

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

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No. 5

No more reservations are to be had. If you have no reservation to date, communicate at once with Dr. Samuel P. Robinson, San Marcos Bldg., Santa Barbara, who will secure special accommodations.

On Tuesday evening about 9:30 a smoker with boxing accompaniments will be staged. On the same day Dr. James H. Parkinson will preside over a luncheon in honor of the American Legion. Golfers will be interested in a golf match, open both to ladies and gentlemen. Each day there will be trap-shooting on the beach, all members welcome. Be sure you spell Trap with a "T" and govern yourself accordingly. Wednesday night

Altogether you will miss a treat, socially and professionally, if you are not in Santa Barbara, May 11-13. The Ambassador Hotel (erstwhile the Belvedere, and still more erstwhile the Potter) will be the scene and center of festivities. Bring the family and come, but come anyhow.

Health is man's choicest possession. For it he will give all he has. Priceless for its owner, it readily becomes an incentive to various devotees and attracts to its train a motley crew of camp-followers. Ours has well been named The Health Age. So it is. And so fertile is the soil on which present-day health ideas have grown, that with them has grown up a noxious crop of weeds. Sane, sound, common sense, scientific health progress is cluttered up by a pestilential underbrush of cults, isms, quackeries, and pseudo-health creeds. From thrusting chiropractic to trusting Eddyism, the weeds swarm thick in the fertile soil of the Age of Health and betoken the well-nigh universal desire for health, as well as the luxuriant growth of genuine scientific health projects.



Two striking illustrations of the specious and noxious tendrils of this garden of weeds are afforded by certain department stores and some sections of the Episcopal Church. For instance, a certain store in San Francisco has exploited the wonders of a self-styled "Miracle man," who, forsooth, by properly corseting the ladies will miraculously restore them to youth, health, and beauty, if these have fled, or preserve them to an indeterminate old age, if haply these attributes still be present. His "development of personal power seems to give him a mastery over many types of pain and disease." Truly, a remarkable advertisement and a peculiar asset for a man who would fit corsets! Presumably certain department stores find that it pays to buy advertising space in wholesale lots, wherein to placard, in language skilfully within the law forbidding fake medical advertising, the smug virtues and dollars-producing personality of a "miraculous" corset-maker, whose ignorant and rabid vituperations against scientific medicine, as sensational as they are unrelated to fact, are the means to the end of separating a large and gullible, and presumably mis-corseted portion of the public from its money. A man is known by the company he keeps. So is a department store. If the corsets sell for enough to pay the "miracle-man's" salary, plus the other advertising expenses involved, then indeed "caveat emptor," for the buyer undoubtedly will receive just what he pays for. So much and enough for "Professor Miracle Man"—professor of the loud mouth and the flamboyant personality and the latest and most faddish fad for the quick separation of cash and public. He will go his way along with the other members of the tin-horn troop, the traveling medical specialist, the Indian medicine faker, the men's disease side-show, and the popular anatomical museum. So much and more than enough for the type of business house which is willing to prostitute legitimate business and honest advertising to the cause of the incoming dollar, which is willing to jeopardize the people's health, their choicest possession, for the sake of the profiteer's dollar, which is willing to take advantage of the people's wholesale interest in health for the sake of the tainted dollar. Let the cobbler stick to his last, the corset-maker to his corsets, and the department store to honest business.

The second illustration of the specious and noxious tendrils of the garden of weeds is seen in the tendency or movement in the Episcopal church toward the institution of physical and mental healing as a regular function of the church. A large question is involved here. With the purely religious aspect of the matter, every thoughtful man must be in sympathy. But in the present age of society, with the present scientific knowledge of disease, both physical and mental, an unguarded and unlimited assumption of healing powers by individuals lacking in the restraints imposed by knowledge, and ignorant of what disease is and is due to, can lead but to disaster. The proper use of suggestion, of faith, of spiritual power, of mental confidence, is of the utmost importance in the

practice of medicine. And they cannot safely be divorced from medicine.

The unskilled, undiagnosing, indiscriminate treatment of disease, is dangerous from the standpoint of individual and public health. In conjunction, the priest and the doctor make a stalwart team. Without the doctor, the priest had well limit his therapeutics. Some of the present-day developments in the Episcopal church smack strangely of Eddyism. The commercialism of Eddyism is apparent in any system of religious or spiritual therapeutics where a fee is charged. Last month a correspondent asked with good reason why, if the rector of an Episcopal church should discuss health subjects on Sunday and for a fee meet his parishioners at his down-town office on Monday, the doctor should not likewise hold forth to a church congregation on Sunday for the purpose of filling his reception room on Monday.

Unfortunately, much charlatanry and especially much commercialism appertaining to medical practice, masquerades with impunity under the cloak of religion. From the standpoint of the individual, we must inquire first as to his personal greed, personal sincerity, and personal desire for notoriety. From the standpoint of the church, we must inquire as to whether such a movement represents decadence, sensationalism for publicity, or a genuine though mistaken interpretation of religious principles. From the standpoint of the physician we must inquire whether these efforts represent the attempts of unqualified persons to practice medicine. And from the standpoint of the public, we must inquire whether such efforts are not inimical to public and private health in the broad sense, and whether the evils of charlatanry and exploitation do not more than counterbalance the benefits derived by the limited class of patients admittedly helped by mental or spiritual healing. In all, it is to be remembered that the principles of psychic healing are a part of medical lore and practice, and it is reasonable to suppose that the well-trained physician is best fitted with safety to employ or direct their application.

#### ARE CHIROPRACTORS ABOVE THE LAW?

There are some people calling themselves chiropractors that are sending out letters to the newspapers and to public officials, claiming that the medical law of California is not adapted to their peculiar method of treatment. They either claim to be above the law and look down upon it with contempt or below the law and want it brought down to their level. The law as it stands they refuse to obey, and have notified the Governor to that effect.

They do not respectfully request Governor Stephens to appoint a Chiropractic Board regardless of the law, but they "insist" that he do so. A few small newspapers, that are printing chiropractic advertisements, are strangely encouraging the chiropractors in the deluded belief that the people of California will permit every cult to have a separate board to endorse its own delusions and

appraise its qualifications. We are convinced that if any of these editors will devote some serious study to the Medical Practice Act of this state they will reach the conclusion that our medical laws should be strengthened and not weakened. We will be glad to furnish any editor with specific information on this important subject.

No editor can consistently support the hostile attitude of some chiropractors to the law when he realizes that a chiropractor can easily qualify under the present law.

"Any chiropractor that is half educated can get a license," says the Fresno Republican. "The rest preferring the pretense of law defiance to the confession of ignorance, put up the plea that the Examining Board being composed of physicians is their competitor and that its members could not examine a chiropractor, because chiropractic is not taught in the medical schools. Any half-educated chiropractor can meet the requirements. Anyone who cannot meet them is too dangerous an ignoramus to be allowed to play with the lives of the people. Anyone who can meet them and will not is simply a revolutionist against a law which the legislature and the people have twice refused to modify. Either way the law ought to be enforced on everybody all the time."

Chiropractors are not above the law, and district attorneys, judges and others charged with the enforcement of the law cannot lawfully grant them exemption.

#### WOODCOCK'S "CULT EXPERTS."

The Woodcock murder trial developed so many eccentric features that it would be remembered as a comedy of errors if its dark tragic consequences did not overshadow all. Some "cult experts" were summoned by Senator William Kehoe, chief counsel for Woodcock's "temporary insanity" defense. Among those whom Senator Kehoe thought qualified was one "Doctor" La Barre. The Grand Jury in its investigation of some of the ugly aspects of this court travesty, called "Doctor" La Barre and examined him as to his qualifications.

The "Doctor" under the Grand Jury grilling admitted that he was a chiropractor, that he did not have even a high school education, that he had no license to practice, and that he was practising in violation of law.

"Do you consider yourself qualified to pass on the insanity of Woodcock?" La Barre was asked. Kehoe's "expert" replied that he considered himself so qualified. Woodcock was indicted by the Grand Jury for perjury and became a fugitive from justice. The "Doctor" who testified in his behalf was arrested for practising without a license, and chiropractors, who believe the laws of California should be violated with impunity, are now yowling that they are being persecuted by an imaginary "Medical Trust."

The Woodcock case demonstrates the abnormal assurance of ignorance, and the danger of allowing it to appraise its own qualifications. In this connection, we now recall that during the last

session of the Legislature, Senator Kehoe was an ardent advocate and voted for the Osteopathic Bill that would have conferred upon osteopathic practitioners a physician's and surgeon's certificate simply upon the payment of \$25.00, and without an examination to determine their experience, skill or educational qualifications.

The League for the Conservation of Public Health, believing that the duty of the State to safeguard the life and health of its citizens is a fundamental principle of government, and recognizing the menace of the Osteopathic Bill, which proposed to turn loose on an unsuspecting public hundreds of incompetent men and women—all unqualified, and many disqualified—with unlimited license to prescribe the most deadly drugs and perform the most dangerous operations—strongly opposed and defeated this bill.

We are not surprised that when Senator Kehoe wants the class of "expert" testimony offered in the Woodcock case that he knows where to seek and find it.

#### TO WHOM IT MAY CONCERN

Beware of criticizing folk

Whom you may need in business life:

Some may resent a trenchant poke,

Resentment oft times ends in strife.

Stick to your pills, and sera too,

And literary stuff eschew.

Remember Alexander Pope,

Philosopher a long time dead,

Who spoke of fools who rush and grope

Where even angels fear to tread.

Stick to your pills with all their frills,

And play no part in medic ills.

"Poetaster."

#### CANCER.

These facts about cancer can not be too often repeated, and should be known by every person over 30 years of age.

1. Cancer at the beginning is usually painless and its onset for this reason is especially insidious and dangerous.

2. Cancer is at first a small local growth which can be safely and easily removed by competent surgical or other treatment.

3. Cancer is not a constitutional or "blood" disease.

4. Cancer is not contagious.

5. Cancer is, practically speaking, not hereditary.

6. Every lump in the breast should be examined by a competent doctor.

7. Persistent abnormal discharge or bleeding is suspicious.

8. Sores, cracks, lacerations, lumps, and ulcers which do not heal, and warts, moles, or birthmarks which change in size, color, or appearance, may turn into cancer unless treated and cured.

9. Probably 60 per cent. of cancers of the rectum are first regarded as piles. Insist on a thorough medical examination.

10. Continued irritation in some form is the usual cause of cancer. It rarely results from a sudden injury.

11. A doctor who treats a suspicious symptom without making a thorough examination does not know his business.



## Special Articles

### \$100,000 EDDIANSCIENSCHISM SUIT.

Disharmony, dis-ease, distrust, disruption, disaster seem to be demonstrating over the discordant elements among the followers of Mary Baker-Glover-Patterson-Eddy. These discordant Eddyite manifestations, that through our corporeal senses we discover in the daily papers and court records, are very disconcerting.

Coming after all the written and verbal assurances we have had that the material world about us is an illusion, a mere delusive idea in our minds, that the only reality is divine mind, and that everything else is absolute nothingness, that "Christian Science despoils the Kingdom of evil and in Christian Science man can do no harm," we were shocked to read that a real suit, for \$100,000 real, concrete, substantial American dollars was filed in the Superior Court of San Francisco on April 9th, 1920, against Peter V. Ross, Edward J. Dupuy, George L. Putnam, Harry F. Gould, David J. Stanton, Earle H. Moore, Mrs. Anna G. Bailie, Lillian J. Miles, Sarah L. Peck, Mrs. Adele E. Penfield and Mrs. Annie L. Yerington.

Peter Ross is the Chairman of the Christian Science Committee on Publication for Northern California and has been a familiar figure at Sacramento during the sessions of the Legislature. He has been the Eddyite spokesman on many controversial occasions, and now, because he and his associates of the Fourth Church of Christ Scientist, refuse to buy, sell, or circulate the "Christian Science Monitor," "Journal," "Sentinel" or other paper controlled by the trustees of the Christian Science Publishing Society, Peter and others have been sued for \$100,000 damages by David B. Ogden of Brookline, Massachusetts.

Mr. Ogden is one of the trustees, and Eddian spokesman of far greater authority than even Peter V. Ross, and he manifestly contradicts Mrs. Eddy's statement that in "Christian Science man can do no harm," for he alleges that Ross et al. passed a resolution that "harmed" the trustees, their publications, etc., at least \$100,000.

It should not be difficult for Mr. Ross et al. to deny any or all of the allegations set forth in Ogden's suit. Through long Eddian training and profession Mr. Ross should be accustomed to combating the errors of mortal mind. Anyone that can deny such obvious things as boils, brains and blood and assert that man is incapable of sin, sickness and death can roll objections up against the trustees as easily as the waves roll seaweed on the shore. To understand or interpret this illusive, imaginary, unreal or real California suit against Ross et al., as the facts or fancies may develop during the course of the trial, it will be helpful to review the circumstances surrounding the formulating of the "Scientific" By-Laws.

After Mrs. Eddy had accumulated a good round sum through the Massachusetts Metaphysical College and other sources, and her Church gained material wealth and power, she made herself Pastor

Emeritus, abolished the office of Pastor and selected as permanent Pastor for all time for all her Churches "Science and Health."

She framed and copyrighted those By-Laws that seemed to confer on the Board of Directors, the President, Treasurer and Clerk, Readers, Board of Trustees et al., certain duties and powers. All of them, however, were subject to the control and final decision of Mrs. Eddy herself. None of them singly nor all of them combined dared to act without her approval. What Mother Eddy said was law, no matter how it contradicted, changed or canceled the written word. She could amend or annul any By-Law, cast the whole pack off if she willed, create another with a breath and whistle all of them back again when she pleased. She reserved all power to herself, and when any questions arose as to interpretation she resolved all doubts in her own favor. She was absolute sovereign with no one to question her "revelations," "demonstrations" or interpretations.

In defiance of the fundamental tenet of her Church that she was incapable of disease or death, both finally came and claimed her. When she died her reservations on the powers and functions of the Board of Directors and the Board of Trustees departed with her. And then the trouble began to brew, trouble the Trustees couldn't subdue.

Relieved of the one, dominating supreme authority that could make or break, set up or set aside any of the measures or members, offices or officers of her Church, this body of so-called Scientists found themselves on an uncharted sea without a compass. The Trustees had the helm and the Directors and their friends began to claim that the vessel was headed for the rocks. Mutiny started. They tried to trim the Trustees' sails, besides throwing tons of "Sentinels," "Monitors" and "Journals" overboard as useless hallast.

The "Scientific" Board of Directors began to muddle and meddle and commit so many errors of mortal mind that the Trustees of the "Christian Science" Publishing Society thought it was time to restrain such spiritual pastime by material means. Legal action was instituted March, 1919, by the Trustees against the Board of Directors. This was precipitated by the Trustees refusing to sign an agreement giving the Directors final authority, supervision and control in regard to the Publishing Society. When the Board of Trustees refused this small courtesy, which would have made them a subordinate body under complete control of the Directors, the Directors retaliated by passing a resolution dismissing Lamont Rowland from the Board of Trustees.

The Trustees won their suit, the Court holding that the Directors had no legal right to remove Rowland, that the real reason for selecting him for removal was that he had been the last appointed of the three Trustees and was presumed to have fewer friends who might be aroused by his removal; that the Directors who voted to remove him were induced to do so rather by their purpose to carry through their plan to obtain control of the Publishing Society than by any of the reasons they recited in their resolution.

In passing on the question of power of the Directors to dismiss a Trustee of the Publishing Society, Judge Dodge held that Mrs. Eddy expressly gave this power to the first members of the Church, but required, also, concurrence of the Trustees under the deed of 1892, but that this power did not survive to the present Directors. It was also found that the Directors do not constitute a corporate body and that they were not authorized to increase their number to five. It was further held that by the provisions of the trust deed of 1880, establishing a Publishing Society, Mrs. Eddy reserved only for herself the power to control the Trustees in the management of their business, and that this special personal reservation expired when she did.

Through various legal actions the Eddian principle of all harmonious mind action has been receiving a series of shocks that has left the Church rent asunder. According to George M. Davison, Chairman of the New York State Christian Science Delegates, wherever the question of excluding the Christian Science Monitor, the Journal, the Sentinel and other periodicals has been voted on, the sentiment is overwhelmingly in favor of the policy of exclusion. The Directors would therefore seem to have popular support not warranted by law.

The New York Tribune states that the income from the publications which the Director faction is seeking to abolish, as an expedient looking to the rearing of autocratic sway, amounts to more than \$1,150,000 a year profit. To abolish these publications means that the income from the works of Mrs. Mary Baker Eddy, amounting to the snug sum of \$600,000 a year, will also be lost. Such sordid dust as money, however, should not disturb the faithful Eddyite who adheres to the fundamental doctrine that there is no such objective reality as matter.

Who knows but that Mr. Ross, putting all anxiety and fretting under his feet, will say that the suit filed in San Francisco is inspired by malicious animal magnetism, and is a mere negation possessing neither intelligence, power nor reality, that this so-called court procedure is but a phase of nothingness which will become apparent when he unfolds the alleged demonstrable facts of Eddianscienschism showing that matter possesses neither sensation nor life. As devout followers of Mrs. Eddy, Mr. Ross and associates are taught to believe that the courtroom, the presiding judge, the yellow law books, the wrangling lawyers pleading their clients' causes, the bailiff, the benches, the boqunets, the bacteria, in brief, all the things that enter into the courtroom, including the plaintiff and the defendants themselves and the witnesses of both, are unreal and filled with the falsity of all material things. It will be difficult for Mr. Ross to admit that any of these things exist. In fact, he has often denied the existence of the most plentiful of these.

If Mind is all-in-all, as Mrs. Eddy maintains, this \$100,000 that Trustee Ogden wants is a

mirage, merely the baseless fabric of a mental picture meant to designate that which has no real existence. Once that the material forces grasp that, the outcome of the suit is a matter of indifference to Ross et al.

In the event that the theory of Trustee Ogden is demonstrated, and the testimony of material or immaterial witnesses establishes the fact of damages and names the responsible parties, Ross may reply, "All is Mind. There is no money. There is no Dam-age. Dam-age like sickness is only inharmonious thought. Being is thinking. Thinking is being. If you think you are damaged just think you are paid."

Following this Eddian theory logically, if Mr. Ogden does not think he has been paid, it is because he is not thinking hard enough. His suit against Ross et al. "shows conclusively how it is that matter seems to be, but is not. All is Mind." Before they are through demonstrating over their various resolutions and By-Laws the Eddyites will give the courts some mysteries to interpret. No uninitiated judge or jury "Can examine a literary animal of Mrs. Eddy's creation and tell which end of it the tail is on."

The inconsistencies of Eddianscienschism have often gone beyond the limit and now the cult itself has reached its limit. By a well-organized and centralized system under autocratic rule, running on a cash in advance basis, Mrs. Eddy's Church achieved phenomenal commercial success. Yet all the time it had the seeds of decay and disintegration. Its phenomenal boom is over. Its absurdities have finally overtaken it and its selfish spirit will restrict its further spread. Its pathology of spiritual power has had its day like the magnetic, mental and faith healers of the past. Like Dowie, Schlater and other miracle workers, like the Royal touch and St. John's liniment, like the pseudoscientists and false Messiahs of the past, Mrs. Eddy's cult has ceased to be vogue. Its solidarity is ended. Its units are divided. The one thing on which they agree is in hampering public health work and in handicapping the progress of scientific medicine. We expect that this obstructive work will be continued by the component parts in their fragmentary way.

It should occasion no surprise that Eddianscienschism has at last overleaped itself and is falling on the other side. The only surprise is that it fooled some of the people so long. Built upon such an absurdity that there is no such thing as disease, inculcating such a blasphemy that Mrs. Mary Baker-Glover-Patterson-Eddy was the chosen successor and equal of Jesus, despite all its vast wealth, barren of a single philanthropic institution for the sick, the blind, the orphan, the aged—is it any wonder that the Directors and Trustees are attempting to divide the costly garments and are quarreling over the rich vesture of Eddianscienschism?



## Hospital Service Department

### THE HOSPITAL EXECUTIVE.

By W. E. MUSGRAVE, M. D., San Francisco.

By whatever title—managing director, manager, superintendent, or what not—the chief executive is the most important factor in any enterprise, whether organized for hospital, social or business purposes. The title used in hospital work is of minor importance so long as it is consistent with the responsibilities of the position as one of the most difficult of specialties. "Superintendent" was an appropriate title for the head of an old time hospital as it is for the commercial "hotel for the sick" of today. It is quite inappropriate for the administrative head of the modern community service, educational, better health center hospital that is growing out of the present national movement.

One of the most prevalent troubles with hospitals is, that they engage as "superintendent" some inexperienced person or one more mature who has made a failure of his chosen work and must be "taken care of." Some of these "superintendents" are paid a pittance and assigned the duties and responsibilities of a clerk, while the hospital shakes itself to pieces under the "management" of some board with a host of committees who meet semi-occasionally, and too frequently know little or nothing of real hospital problems.

#### QUALIFICATIONS.

Success as a hospital administrator is dependent upon the same qualities that insure success as an executive in any other field, plus some special attainments necessary to cope with peculiarities in hospital work. Briefly summarized, these qualities are, appropriate general and special education; experience; an inexhaustible fund of tact and patience; unusual sense of relative values; tireless industry; enthusiasm; a clear judgment of things as they are and a vision of things as they ought to be. The ideal hospital executive has both a medical and a business education. There are some splendid men who have won national reputation in the work who are not physicians, but there can be no question but what medical training adds to the value of any hospital executive, and for the great teaching centers such training is necessary to insure a maximum of progress and success. In non-teaching, semi-commercial, and certain types of special hospitals, a medical training is less necessary, and in the smaller plants it usually is out of the question for financial reasons.

#### SCARCITY OF WELL TRAINED HOSPITAL EXECUTIVES.

Neither medical education nor business training nor both in combination can prepare one for hospital work. In addition to personal qualifications there must be the special training and experience obtained by association with leaders actually engaged in the work in a hospital large enough to give a working acquaintance with all the principal problems peculiar to this specialty.

For a long time the supply of well trained hospital executives has been inadequate, and recently, due to the ever growing hospital betterment movement and the greater public demand

for more and better hospitals, the shortage of these men has become a problem of national interest—to such an extent that some medical schools and hospitals have instituted courses of training, and the Rockefeller Foundation recently called a conference to consider the question. The field is rapidly becoming recognized as one of the most useful and attractive of specialties, offering unusual opportunities, particularly to selected medically-trained men for constructive work, initiative and research.

#### DUTIES OF ADMINISTRATOR.

The modern hospital covers a very wide range of activities and the successful administrator must have a good working knowledge of each of them and must keep in reasonably close touch with the activities of all departments. The chiefs of all departments and services should meet frequently with the executive in conference, and each of them should have free access to him at all times. In medium sized hospitals this is easy of accomplishment, and in those of less than 100 beds it is easy for the administrator to keep in close personal touch with the smallest details of every department. In larger institutions most of the detail work must be left in the hands of trusted assistants as chiefs of departments, while the chief executive gives his time to conferences, consideration of policies and to harmonizing, coordinating and stimulating the work of all departments.

Roughly speaking, the director may divide his attention between administrative—public utility—professional—teaching and research divisions within his own organization and have plenty of his time and interest centered in methods of contact with other health and welfare organizations and with the public interest in all sorts of health questions.

The *administrative* problems are of great variety—purchasing, property, supplies, power plants, heat, light, water, ventilation, building, alterations, repairs, plumbing, painting, laundry, kitchens, diet kitchens, insurance, rents, interest, accounting, records, office work in general, banking, financing, nursing, housekeeping and dozens of other activities, all of importance in hospital success.

Of *public utility* problems there may be mentioned operating, X-ray plants, radium, clinical, pathological and other laboratories, electro-cardiographic, mechanical and other modern difficult and expensive parts of modern diagnosis and treatment.

The *professional* departments and staff require a constant, sympathetic, intelligent interest and support. Staff organizations do not hold together without effort, and the best medicine is done by staffs interested in and practicing team work.

*Teaching and research* spirits are necessary parts of any progressive medical atmosphere. They must have the interest and intelligent support of the administrator.

#### CO-OPERATION AND ADVANCEMENT.

Co-operation and conferences with staff organization, boards and committees requires a great deal of thought, explanation and energy. It is worth

while and necessary, because continued advancement and progress may be had only as all interests go forward together, and the hospital as a whole is just as good as its weakest department.

The wise administrator will interest himself in all public movements having better health as part of their program, and he will make an earnest effort to work in close co-operation with all such movements with which his institution comes in contact. Hospitals like other public service agencies must have friends and a wide zone of influence for good. One of the principal functions of the executive is to foster and develop this spirit all the time. Perhaps in a greater degree than other persons the hospital executive sees the waste that goes on about us all the time by the inefficiency, overlapping and what not of "organizations" "interested" in various phases of the great better health problem. He sees these things "close up" and it requires no little tact and judgment to establish and maintain the right contact with them all.

#### PERSONAL POPULARITY.

The work is not calculated to stimulate personal popularity any more than does similar work in other lines. However tactful, resourceful and politic the administrator may be, there come times and situations that must be met with firmness and even aggressiveness, with the consequent price in unhappiness. On the other hand, the work offers compensations in friendships, the consciousness of work well done, that are worth while and compare with those of other branches of medical and humanitarian work.

#### SUPERINTENDENT OF NURSES.

Much of the success of any executive depends upon his assistants, particularly the *superintendent of nurses*. Next to the chief executive, the superintendent or director of nurses fills the most important position. As with the other position, the demand far exceeds the supply and capable well trained executive nurses are not being trained as they should be. Other assistants include office manager, engineer, purchasing agent or property and supply officer and a capable efficient loyal force in each department.

By request, the next article will begin the discussion of the preparation, indexing and filing of clinical records.

## Original Articles

### SURGICAL PATHOLOGY OF THE SEMINAL VESICLES \*

By JAMES R. DILLON, M. D.  
Instructor Genito-Urinary Surgery, and  
FRANK E. BLAISDELL, M. D.  
Associate Professor Surgerv. Stanford University  
Medical School.

The chronicity of many urethral infections, arthritis, neurasthenic tendencies, perineal pain and many general functional disturbances is often due to the involvement of the seminal vesicles;

and all the causes of pelvic engorgement predispose to a vesiculitis and its indefinite prolongation is probably due to incomplete drainage. Therefore it is highly important to have in mind the structural changes which may take place and be present in the vesicles during the various stages of an urethritis to guide us both in the prophylaxis and final treatment of the vesicles.

It is necessary to adopt every possible means of lessening the severity of a posterior urethritis, as it is evident that a slight amount of inflammatory swelling will block the ejaculatory ducts, hence we must avoid irritating medication, passage of instruments and manipulation during the acute stage of the urethritis. Should the ejaculatory ducts become infected and a vesiculitis occur and it is not carefully treated it results in a chronic condition, which may resist all our present non-operative methods of treatment. Most urologists have reported on the drainage of the vesicles being routinely done in all cases where operative procedure was undertaken. But in studying the pathology of sections taken from different cases at operation and comparing them with the clinical manifestations before and after operation, we find that simple drainage is not always sufficient to accomplish our purpose in operating, and may account for many of the unsatisfactory results of vesiculotomies.

In the chronic forms of seminal vesiculitis we find from the macroscopic study of the vesicles at operation, two distinct pathological changes—first, those involving the intrinsic structures and second, the extrinsic processes. From these two main types of pathological vesicles there may occur many variations, but in considering the operative indications we find it convenient to classify them under four definite types.

1. Where neither intrinsic nor extrinsic changes are macroscopically evident.
2. Where only extrinsic changes are macroscopically evident.
3. Where only intrinsic changes are macroscopically evident.
4. Where both intrinsic and extrinsic changes are macroscopically evident.

In the first group the pathological changes are not really evident to the eye. We find as a rule rather large thin-walled vesicles, distended with secretion, from which the fascia of Desnonvillier and the perivesicular tissues are easily separated. These vesicles generally consist of many convolutions and diverticula from which no secretion, or if any very little, could be expressed by rectal massage previous to operation. This retention is undoubtedly due to the stenosis of the ejaculatory ducts caused by inflammatory swelling of the lining epithelium in the early stages and later by sclerosis. Another factor in maintaining this mild type of vesiculitis is a large swollen boggy prostate, congested with blood and lymph and compressing the ejaculatory ducts sufficiently to prevent their vesicles from draining either spontaneously or by stripping and often prolonged in the preoperative treatment by too frequent and too violent massage.

\* Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.



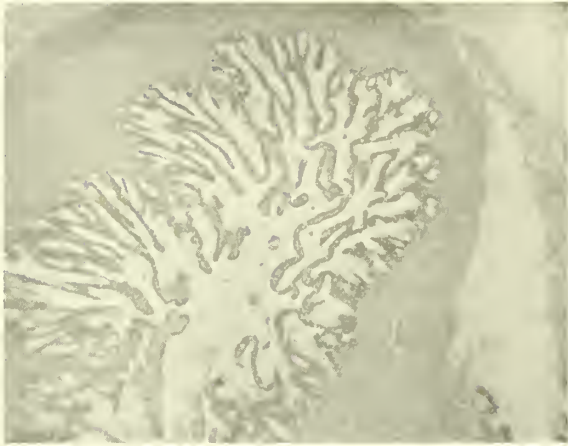


Figure 1.  
Transverse section of vesicle showing complicated infoldings of normal secreting structure.  
D 329; Obj. A; Oc. 2 in., Zeiss.  
Bel. 12 in.; T. 15; D.  $\frac{1}{2}$ .

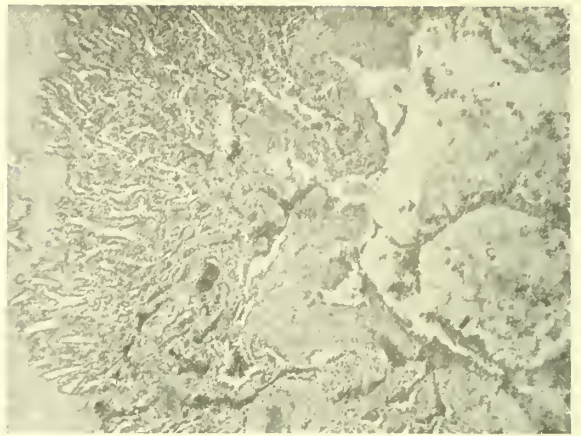


Figure 4.  
Fibrosis of ends of folds with coalescence and destruction of secreting epithellum, lumen and recesses filled with cellular debris.  
D 329; No. 4; Obj. A; Oc. 2 in.

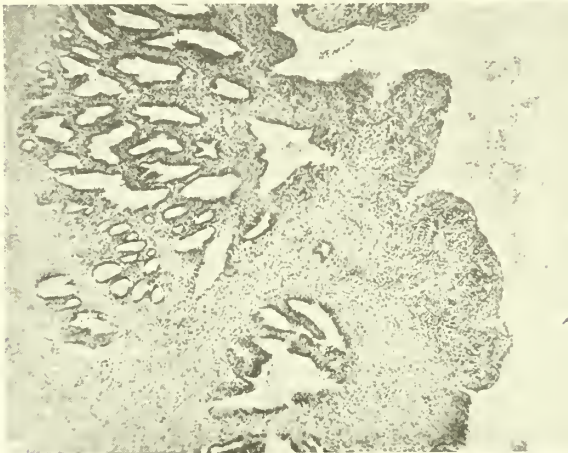


Figure 2.  
Showing granulating extremities of thickened folds.  
D 329; Obj. A; Oc. 2 in., Zeiss.  
Bel. 12 in.; T. 15; D.  $\frac{1}{2}$ .



Figure 5.  
Hyperplasia of the fibromuscular wall of vesicle with compression of secreting structures.  
D 329; No. 3; Obj. A; Oc. 2 in.

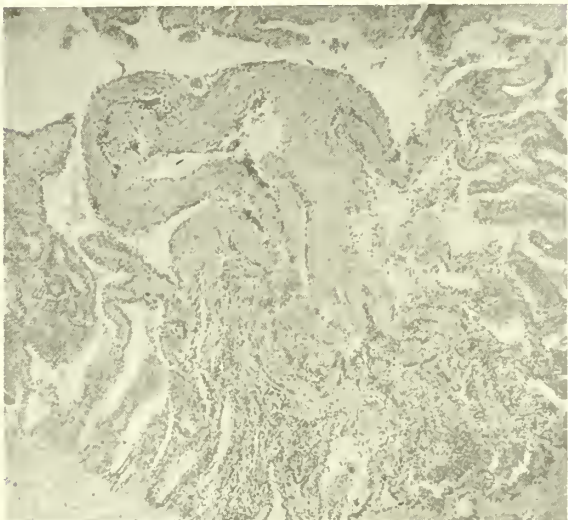


Figure 3.  
Showing fibrosis of ends of folds and destruction of secreting structures with cellular infiltration about base of folds.  
D 329; Obj. A; Oc. 2 in., Zeiss.  
Bel. 12 in.; T. 15; D.  $\frac{1}{2}$ .

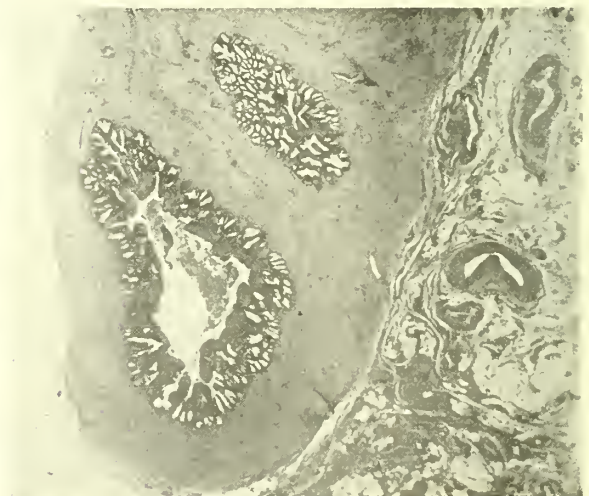


Figure 6.  
Excessive fibrous thickening of walls of vesicle and marked coalescence of thickened mucous folds. Very low power.  
Sp. 91; D 279; No. 11; Box 33.  
Obj. 3 in., Oc. 2 in., Zeiss.



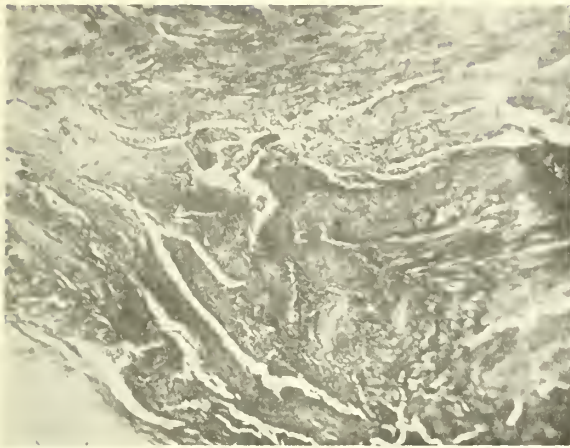


Figure 7.  
Showing dense fibrous tissue about vesicle, marked cellular infiltration of the areolar connective tissue clefts.  
D 213; No. 2; Obj. A; Oc. 2

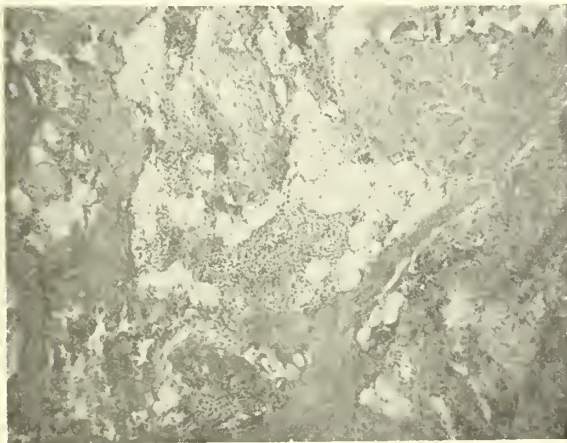


Figure 8.  
Cellular infiltration of perivesicular tissue at considerable distance from the vesicles.  
Sp. 91; D 260; No. 6; Box 33.  
Obj. A; Oc. 2 in., Zeiss.

In the second group we find the vesicles in practically the same condition as in the first, but with marked extrinsic changes ranging from hyperaemia and oedema of the perivesicular tissues in the earlier stages to dense thickened scar tissues encasing large distended vesicles in the later changes. This fibrous thickening is generally continuous with the prostatic capsule and not only encases the vesicles but follows the ejaculatory ducts through the prostate ensheathing and constricting them. In this type rectal massage never yields any vesicular secretion, though as stated above, the vesicles may be greatly distended with it.

The third group represents vesicles in which the pathological process has been carried to the more extreme degree in the intrinsic changes. They become thickened and indurated with very little if any secreting capacity. On opening the vesicle only a drop or two of fluid can be obtained, and often profuse bleeding results, from the highly engorged vesicular and perivesicular tissues. In this group the vesicles are easily separated from their surrounding tissues.

In the fourth type we find the most marked and final stages of seminal vesiculitis in which it

varies from the intrinsic changes found in the third group to a marked atrophic shrunken relic encased in thick tough tissue which may reach a quarter of an inch or more in thickness. At times it is utterly impossible to dissect them out and often very difficult to find and identify them. The proximity of the bladder, and the possibility of the peritoneum and ureters being drawn into closer relationship renders the operation more dangerous. The surrounding fibrous tissue may enclose the vesicles either entirely or partly, that is it may be very thick and hard at the base of the prostate where it starts and thin out as it approaches the fundi of the vesicles. The vesicles themselves may present intrinsic inflammatory changes in any or all of the above types, in the same vesicle, with the more marked condition of the third group in the lower part proximal to the ejaculatory ducts and with distended lobules in the fundus which have become walled off and if not removed must be opened and drained. Occasionally we may find these extensive changes limited to one vesicle while the other one may be fairly normal or exhibit only moderate inflammatory states.

In considering the normal microscopical anatomy, the vas deferens, ampullae, and seminal vesicles are similar in structure, each having a mucosa supporting several layers of epithelium.

External to the mucosa is a muscularis, consisting of two layers of involuntary muscle, the inner or circular is thick, and the outer longitudinal layer somewhat thinner with a thin submucosa connecting the mucous and muscular tunics. Outside of all is the fibrous adventitia, which is continuous with the surrounding connective tissue and contains bloodvessels and lymphatics.

The seminal vesicles are glandular and consist of two lobulated pouches placed between the base of the bladder and rectum, serving as reservoirs for the semen. The lining columnar epithelium yields a secretion which is thrown out into the lumen to be added to the secretion of the testes.

The mucosa is thrown into folds, somewhat like that of the fallopian tube. These divide the vesicular lumen into labyrinthine spaces. Normally the folds are moderately thin, and may give off secondary divisions. (Fig. 1.)

The microscopical pathology in the early stages shows more or less thickening of the mucous folds due to round celled infiltration and granulation tissue at their extremity and with some denuding of the epithelium. (Fig. 2.) These thickened folds coalesce at their free ends, becoming more fibrous in character and form recesses between them which are filled with inflammatory exudate, secretion, necrotic cells and micro-organisms. (Fig. 3.) Other lobulated pouches of the vesicle are more or less normal and many are dilated.

In places the lumen is obviously narrowed and more or less clogged with debris (Fig. 4), showing similar but more advanced changes. The fibrous tissue hyperplasia becomes more evident and exerts compression on the degenerating epithelial structures. (Fig. 5.) The stroma is very cellular.



A part of the lobules are more or less normal and others are widely dilated and contain cellular debris. In places leucocytes are intermixed with the round cells. Many lobules are often nearly obliterated.

In the more advanced stage of chronic vesiculitis the microscopical picture shows a progression of the conditions found in the preceding group. The granulation tissue increases and becomes more vascular. Many of the lobules are seen in a more advanced stage of obliteration, and being replaced by fibrous tissue. (Fig. 6.) The fibrous sheath of the vesicle shows thickening and leucocytic and round cell infiltration is more obvious in the perivesicular tissues.

In the later stages the destruction of glandular tissue with fibrosis is much more advanced. The perivesicular tissue is dense and the areolar tissue clefts are engorged with round cells and scattered or grouped leucocytes are seen. (Fig. 7.) At a considerable distance from the vesicles the loose areolar and adipose tissues are infiltrated with round cells and leucocytes intermixed. (Fig. 8.)

Throughout the series the pathological changes are irregular in distribution and between the foci of destruction there are areas quite normal or slightly involved, while again whole lobules are destroyed. The most striking changes in the advanced cases are the extensive fibrosis and the destruction of the secreting mucous membranes.

In types one and two the operative results were uniformly good for vesiculotomy. In type three the results were good on excising the vesicles and only slightly improved if at all on draining them. In type four the results of drainage were uniformly poor, principally because of the impossibility of thoroughly exposing the vesicles and opening up all foci of infection in both vesicular and perivesicular tissues. In all types there is from slight to complete retention of vesicular secretion and in the extreme pathological types there is more or less complete suppression and absence of secretion due to the destruction of the secreting epithelium, the thickening of the vesicular walls and the filling of the cavities with debris.

Several men with gonorrheal rheumatism have stated that their rheumatism is always relieved for a day or two following intercourse. These cases most likely can be placed in the first two groups, where the destructive changes are in the milder state, and the vesicles are still sufficiently elastic to be able to throw out their contents through the involuntary musculature in the vesicular walls, during ejaculation. But men with their vesicles in the more pronounced stages have as a rule had their sexual capacity greatly reduced and even become entirely impotent. In no case in our series has any man had his sexual capacity rendered less active than it was before either vesiculotomy or vesiculectomy, and in many cases where a patient had been impotent previous to operation he recovered his sexual capacity entirely in a few weeks or in some cases after several months, and a few patients claim they are more sexually active now and feel better than they have for years previously.

In many of our cases of chronic gleet we are

unable to obtain any vesicular secretion by rectal massage. In studying the effect of massaging very often we find we can express the vesicular secretion the first time or two and then are unable to again, merely getting a few drops of prostatic secretion. The patient will even tell you that ejaculations during intercourse produce a diminished amount of semen. The most likely reason for this appears to be due to the production of a hyperaemia in the vesicle and also in the perivesicular tissues as well as in the prostate which tend to reduce the secreting and retaining capacity of the vesicle, in addition to compressing and obstructing the ejaculatory ducts.

It is in such cases that we find gonorrheal rheumatism, impotence and neurasthenia most resistant to treatment. Also in these cases we can often get the urethra in good condition with perfectly clear urine, and think our patient cured and dismiss him. But in a few weeks he returns with shreds and morning drop. A minute quantity of infected vesicular secretion has most probably oozed through the stenosed ejaculatory ducts and reinfected the urethra. We find that by draining or removing the vesicle and following the recovery from the operation with a few urethral and bladder irrigations that the urine often becomes permanently cleared and the morning drop disappears.

Lastly, though we have good clinical evidence that vesiculotomy and vesiculectomy produce no ill effects upon a man's sexual capacity and in many cases improves it, we have no data in our series as to the effect on sterility. But if, as stated by different investigators, the vesicular secretion has a prolonging action on the life of the spermatozoa, many sterile marriages can be accounted for by the marked fibrosis and destruction of secreting structures in the advanced chronic vesiculitis group. And in cases where there is considerable organic and functional disturbance in a man from chronic autointoxication from obviously destroyed vesicles, there can be no reason for leaving any diseased tissue to impossible drainage and risking the patient to the chance of an unsuccessful result of his operation.

## CLINICAL OBSERVATION AND TREATMENT OF 134 CASES OF CHRONIC PROSTATITIS.

By LIONEL P. PLAYER, M. D., and CHARLES P. MATHÉ, M. D.

From the Urological Department of the University of California Medical School.

The most discouraging, as regards treatment, yet the most frequent condition encountered in the practice of Urology, is Chronic Prostatitis. After a careful study of these cases, observed for the past eighteen months, we have found that the usual methods of treatment are unsatisfactory. Cotton & O'Neill, in 1903 (1) reported what they term, poor average results. In their series of 16 cases of chronic posterior infection of the urethra, 7 were cured and 9 were not. In chronic infection of the vesicle and prostate, 11 cases were temporarily relieved, but none cured. Sanford (2) reported only 18 cured cases, out of a series of 100 cases treated at the Lakeside

Hospital, Cleveland, for a period of time varying from 5 days to 7 months. In this group were chronic and acute cases. Davis (3) points out that over 61.5% of 450 patients, treated at the Boston Dispensary in 1912, come for treatment only once or twice. In our series of cases, we have only one case that could be called an uncomplicated Posterior Urethritis and treated as such. The patient discontinued treatment before the examination was completed; had he undergone further investigation, we would probably have found another focus in the urological tract responsible for the continuance of the urethritis. In our belief the chief fault lies in the fact that all cases receive same routine form of treatment, regardless of the degree of involvement of the prostate itself, adjacent seminal vesicles, vesical neck and posterior urethra with its ducts, glands and verumontanum.

#### OUR METHOD OF PROCEDURE.

After taking a careful history of the case, the patient is subjected to a preliminary routine examination, as follows:

The external genitalia are carefully gone over.

Any discharge from the meatus is examined microscopically. Patient voids in three glasses. (The Jadassohn-Goldberg three glass test is used as a routine). Their individual content is carefully considered macroscopically. The specimen from the second glass is centrifugalized and sediment examined microscopically, first wet, then fixed and stained. The result of chemical examination for sugar, albumin, etc., is noted and the specific gravity is determined.

Rectal examination of the prostate and seminal vesicles is recorded, according to palpatory findings on a diagram. The prostate is massaged, seminal vesicle stripped, according to the method of Cabot, and the secretion collected and subjected to microscopic examination to determine the relative percentage of pus to lecithin. Other abnormalities are recorded.

The Bougie à Boule is passed through the anterior urethra to determine points of obstruction, the bladder filled and a sound is passed. These findings are noted. The size of the urinary meatus is observed. Further examination with endoscope and cystourethroscope is carried out, if indicated.

According to information thus obtained and in order to treat the cases intelligently, we have classified them:

- I. According to clinical findings.
- II. According to degree of involvement, with treatment employed in each subdivision.
- III. According to results obtained.
- IV. According to length of time involved in treatment, with the results.
- V. According to the total number of treatments, with the results.
- VI. According to intervals between treatments, with the results.

Internal treatment, consisting of Hexamethylenamine, in one gram doses, given before the meal and acid sodium phosphate in 1.5 gram doses after the meal, provided however, the urine is

not acid, was given as a routine in all cases. In massaging the prostate, the degree of pressure is gauged according to the reaction. In mild cases and where fluctuation is present, very gentle pressure is used.

At this point it is well to note that one cannot rely on one massage of the prostate; often the first massage shows no pus in the secretion, but the second or third massage will demonstrate the true condition. In these cases the first massage breaks up multiple small packets of pus, if present, and the second or third shows the pus in the secretion. In cases of stricture of the urethra, seminal vesiculitis or where shreds are found in the three glass test, graded sounds or the Kollmanndilator is used. The sound is passed on a full bladder. The size of the sound is gradually increased to 28 French and never above this dimension, except in cases attended by stricture. In cases of *Tabes Dorsalis*, no sound is used. We have found incontinence of urine, in some cases, permanent, resulting from the use of sounds, especially where the sphincters are already relaxed. In all cases with a congenital stricture of the meatus below 26 French, a meatotomy is performed.

I. In this classification the treatment is based according to clinical findings. Here one must consider the other portions of the urological tract, as well as the prostate itself. The following chart is self-explanatory. The form of treatment is designated under each individual classification. In the course of treatment, where further investigation reveals other existing conditions, the patient is re-classified in the proper group, on the chart. In this manner some of the cases appear in two or more groups.

- |                                       |  |                     |
|---------------------------------------|--|---------------------|
| 1. Chronic Urethritis                 | 6. Chronic Prostatitis with Sem. Vesiculitis | 14. Pyelo Nephrosis |
| 2. Chronic Urethritis with Littritis  | 7. Seminal Vesiculitis                       | 3. Continued        |
| 3. Chronic Prostatitis                | 8. Verumontanitis                            |                     |
| 4. Chronic Prostatitis with Arthritis | 9. Trigonitis                                |                     |
| 5. Chronic Prostatitis with Stricture | 10. Cowperitis                               |                     |
|                                       | 11. Cystitis                                 |                     |
|                                       | 12. Pyelitis                                 |                     |
|                                       | 13. Pyelo-Nephritis                          |                     |

II. Treatment based on degree of involvement, determined by the percentage of pus in the secretion.

#### CHART NO. I.

- A. Less than 10% pus.
- B. Between 10% and 20% pus.
- C. Between 20% and 40% pus.
- D. Between 40% and 100% pus.
- E. Cases of Prostatitis complicated by seminal vesiculitis, Arthritis or both.
- F. Persistent reappearance of pus in spite of treatment.

A. These cases we consider mild, such as one often finds closely following an acute gonorrheal urethritis, which has invaded the prostatic urethra. In this group, 7 cases were treated, receiving an average total of 5 treatments. Usually we treated these cases at intervals of two or three days. The results are as follows: of the number,



II

## DEGREE OF INVOLVEMENT.

		IMPROVEMENT				
		NONE	SLIGHT	MUCH	MARKED	TOTAL
A	Less Than 10%	4	0	0	3	7
B	10% To 20%	5	1	4	10	20
C	20% To 40%	3	1	11	2	17
D	40% To 100%	3	7	22	24	56

II-CONTINUED

E. PROSTATITIS.  
SEMINAL VESICULITIS. ARTHRITIS.

28 Cases		IMPROVEMENT				
		NONE	SLIGHT	MUCH	CURED	TOTAL
VACCINE		1	0	5	5	11
NO VACCINE		1	6	3	0	10
SEMINAL VESICULOTOMY TOO RECENT		1	0	0	4	5 2

II-CONTINUED

## F. RE-APPEARANCE PUS.

URETHROSCOPIC FINDINGS	IMPROVEMENT				
	NONE	SLIGHT	MUCH	MARKED	TOTAL
CYSTS				9	9
PAPILLOMATA				7	7
POLYP				1	1
ABSCISS UTRICLE				0	3
DUCTS & GLANDS				1	1
VERUMONTANITIS				21	21
NO LESIONS				1	1

4 discontinued treatment, 2 were cured and 1 re-classified in group 8, as upon cystourethroscopic examination, he was found to have verumontantitis. We wish to emphasize the limited number of cases in this group. The treatment consisted of—1. Massage on a full bladder. 2. The patient voided.

B. Cases showing between 10% and 20% pus.

In this group 20 cases were treated, receiving an average total of 26 treatments. These cases were treated at intervals of from two to three days.

III

## ACCORDING TO RESULTS.

		IMPROVEMENT	TOTAL
A	NONE	13-(50% LUES)	
B	SLIGHT	26	
C	MUCH	47	
D	MARKED	48	

IV

## ACCORDING TO LENGTH OF TIME.

TIME.	IMPROVEMENT.				
	NONE	SLIGHT	MUCH	MARKED	TOTAL
A 3 MONTHS & LESS	11	24	24	21	80
B 3 TO 6 MOS	2	0	8	5	15
C 6 TO 9 MOS	2	0	6	5	13
D 12 MOS & OVER	1	0	4	10	15
STOPPED TREAT 2 WKS					11
					134

V

ACCORDING TO  
NUMBER OF TREATMENTS.

TOTAL NUMBER	IMPROVEMENT				
	NONE	SLIGHT	MUCH	MARKED	TOTAL
18 OR LESS	9	26	23	21	79
18 TO 36	2	1	9	10	22
36 TO 72	2	0	10	12	24
72 & OVER	0	1	4	4	7
					134

5 cases showed no improvement;  
1 case showed slight improvement;  
4 cases showed much improvement;  
10 cases showed marked improvement,  
probably cured.

The treatment consisted of:

1. Massage on a full bladder.
2. Patient voids.
3. A deep instillation is added, consisting of nitrate of silver from  $\frac{1}{4}$  of 1% or argyrol 25%.

C. Cases showing between 20% and 40% pus.

VI

## · ACCORDING TO INTERVALS ·

INTERVALS	IMPROVEMENT				
	NONE	SLIGHT	MUCH	MARKED	TOTAL
2-3 DAYS	1	4	5	6	16
5 DAYS	10	21	34	44	114
7 DAYS	0	2	4	3	9

134

In this group 17 cases were treated, receiving an average total of 30 treatments, at intervals of from two to five days, usually five days. Of these

- 3 cases showed slight improvement;
- 11 cases showed much improvement;
- 2 cases showed marked improvement.

Treatment is as follows:

1. Patient voids in three glasses.
2. Massage.
3. Irrigation of the bladder with boric acid 4% potassium permanganate 1:4000 or nitrate of silver from 1:20000 to 1:10000.
4. Patient voids.
5. Instillation of one of the solutions noted in Class 2-B.

D. Cases showing between 40% and 100% pus.

In this group 56 cases were treated, receiving an average of 25 treatments; of these

- 3 cases were unimproved;
- 7 cases showed slight improvement;
- 22 cases showed much improvement;
- 24 cases showed marked improvement.

Treatment is as follows:

1. Patient voids.
2. Massage.
3. Irrigation with the solutions noted above.
4. A sound is passed on the full bladder.
5. The sound is withdrawn and patient voids.
6. A deep instillation of the solutions noted above is given.

E. Cases of Prostatitis, complicated by either Seminal Vesiculitis, or Arthritis or both. Of the 134 cases studied, 110 had both prostatitis and seminal vesiculitis; 9 had prostatitis alone and 15 discontinued treatment before the Cabot test was made. In this group many of the cases responded to treatment outlined in Routine 3-D. Out of 110 cases, 28 resisted the milder form of treatment and therefore were transferred to a routine where vaccine was added. In these 28 cases seminal vesiculotomy was performed, in 7 and the remainder or 21 cases were treated. Of the 21 cases treated, 11 cases were treated with vaccine, receiving an average of 11 injections, at intervals of from five to seven days. Of these

- 1 case showed no improvement;
- 0 case showed slight improvement;

- 5 cases showed much improvement;
  - 5 cases showed marked improvement.
- Of the 10 cases treated without vaccine
- 1 case showed no improvement;
  - 6 cases showed slight improvement;
  - 3 cases showed much improvement;
  - 0 case showed marked improvement.

In the 7 cases treated more radically, seminal vesiculotomy was done, the vesicles being opened up and freely drained.

Fuller (4) in his classical article pointed out that seminal vesiculotomy is an appropriate treatment of chronic seminal vesiculitis, complicated or uncomplicated by chronic gonorrheal rheumatism. Since then Squier (5), Young (6), Cunningham (7) and others have employed Vesiculotomy with modified technique in resistant cases, which could not be benefited by less radical measures. Cunningham, Luys, Dillon (12) and others report good results following this treatment.

In this group there were seven cases on which seminal vesiculotomy was performed. These cases had received treatment varying over a period of from two to five years. Four of these following operation, showed marked improvement; 1 showed no improvement; the other two cases are too recent to definitely state the extent of improvement, but symptomatically they are much improved.

## CHART NO. 2.

Treatment is as follows:

1. Patient voids.
2. Massage and systematic stripping of seminal vesicles. If stenosis of the ejaculatory ducts is present, they should be catheterized.
3. Irrigation with the solutions noted in Group 3-C.
4. Dilatation of the prostatic urethra. The Kollmann Posterior Dilator is used, increasing according to the tolerance of the patient up to 40 French, in place of the sounds.
5. Patient voids.
6. Instillation of one of the solutions, noted in 3-B is used.
7. In cases of arthritis, the joints are put to rest in casts; in none of these cases were the joints opened up and cleansed, as advised by Hagner (8).
8. A stock vaccine was added, commencing with a dosage, sufficient to cause a mild reaction and increasing the amount given, sufficiently to continue this reaction.
9. Sitz baths used nightly. In hospital cases the rectophor was used.
10. Systematic catheterization of the ejaculatory ducts was not performed in these cases. The ejaculatory ducts should be catheterized in those cases where vigorous stripping obtains no secretion. Luys (9) and later Walbarst (10) report remarkable improvement, following catheterization of these ducts, which are usually stenosed.
11. Vasotomy was not performed after the method of Belfield (13).



F. Persistent reappearance of pus in spite of treatment.

In this group we have a number of cases whose secretion showed less than 5% pus. All treatment was suspended and a month's rest was given. Re-examination at the end of the month showed re-appearance of pus, varying in amount. A careful observation of the posterior urethra, with the use of a cysto-urethroscope has demonstrated, in many instances, lesions in the posterior urethra, which, through irritation, cause reoccurrence of pathological condition of the prostate. These conditions are often overlooked with the use of the ordinary endoscope. Nine cysts of the verumontanum or of the posterior urethra were found.

Seven papillomata in prostatic urethra were found.

One polyp of the verumontanum and the posterior urethra was found.

We observed three abscesses of utricle.

In one case, we noted chronic inflammation of the glands of the posterior urethra, prostate and ejaculatory ducts.

Twenty-one cases of verumontanitis were recorded.

One case was noted with no lesions of the posterior urethra.

These cases were finally relieved by use of

1. The electro-cautery. The D'Arsonval high frequency current was found more satisfactory than the Oudin.
2. Nitrate of silver, varying in strength from 20% to 100%. Straight crystals, fused on a metal applicator, were used for the 100% and found to be the most satisfactory after the method of Geraghty.
3. Biniodide of mercury.
4. Acid nitrate of mercury.
5. Picric acid.
6. Argentide.
7. Iodine.

Less satisfactory.

The crystals of nitrate of silver and the electro-cautery were found to give the best results. In using the electro-cautery the small Wappler Electrode, although more difficult to manipulate, proved more satisfactory, because it can be more easily confined to the pathological point. The application of pure crystals of nitrate of silver, fused on a rod, was used every seven days. Often one application was found sufficient, care being exercised to apply the crystals to the pathological point only. With this procedure, no untoward reactions were encountered, as reported by Walbarst (10 and 11) and others. Biniodide of mercury, acid nitrate of mercury, picric acid and argentide were used, but all were found less satisfactory.

#### CHART NO. 3.

III. Classification according to results obtained. Arbitrarily, we have divided this group of cases into four subdivisions.

1. Cases showing no improvement. Of the total of 134 cases, only 13 were found to show absolutely no improvement after prolonged treatment and 50% of these showed syphilis of the nervous

system. Instrumentation and applications serve only to irritate the local condition in cases accompanied by syphilis.

2. Twenty-six cases showing slight improvement +. Symptomatically, the improvement was very great and in some cases caused such relief, that treatment was discontinued. We have reason to believe that, had these cases persisted in their treatment, the secretion would have shown greater improvement.

3. Cases showing much improvement ++. Forty-seven of the total number of cases come in this group. In most of these cases the clinical symptoms have entirely cleared up. The prostatic secretion, however, showed about 20% pus.

In the 48 cases showing marked improvement, probably cured, +++ , there were less than 5% pus in the secretion, symptoms entirely cleared up. They are kept under observation with monthly massage, in order that we may be sure that the condition is more or less stable. These cases are to be followed by serological tests.

#### CHART NO. 4.

IV. Classification according to the length of time of treatment and results.

A. After persistent treatment for three months or under.

- 11 cases showed absolutely no improvement;
- 7 of these discontinued treatment of their own accord and were not followed.
- 24 cases showed slight improvement, +.
- 24 cases showed much improvement, ++.
- 21 cases showed marked improvement, probably cured, +++.

B. From three to six months' treatment.

- 2 cases showed no improvement, —.
- 0 case showed slight improvement, +.
- 8 cases showed much improvement, ++.
- 5 cases showed marked improvement, +++.

In passing, we point out the fact that these cases, although treated for a longer period of time than those in above group (Group IV. A), show a smaller number of cured cases, but a greater degree of improvement. One must bear in mind, however, that individuals are dealt with whose general resistance is below par (those having great resistance being cured in three months). The less the resistance, the greater length of time one must employ. In the two cases showing no improvement, both had syphilis in some form.

C. From six to nine months' treatment.

- No improvement, 2 cases (both had syphilis).
- Slight improvement, 0 case +.
- Much improvement, 6 cases ++.
- Marked improvement, 5 cases +++.

This group presents the same results as Group IV B. Again we demonstrate that the cases showing no improvement after prolonged treatment have syphilis.

D. Treatment for one year and over.

- Unimproved, 0 case —.
- Slight improvement, 0 case +.
- Much improvement, 4 cases ++.
- Marked improvement, 4 cases +++.

## CHART NO. 5.

The results, according to the total number of treatments, are as follows:

1. 18 treatments or less.  
Unimproved, 9 cases —.  
Slight improvement, 26 cases +.  
Much improvement, 23 cases + +.  
Marked improvement, 21 cases + + +.
2. Between 18 and 36 treatments.  
Unimproved, 2 cases —.  
Slight improvement, 1 case +.  
Much improvement, 9 cases + +.  
Marked improvement, 10 cases + + +.
3. Between 36 and 72 treatments.  
Unimproved, 2 cases (both luetic).  
Slight improvement, 0 case +.  
Much improvement, 10 cases + +.  
Marked improvement, 12 cases + + +.
4. 72 treatments and over (From 1 to 5 years).  
Unimproved, 0 case —.  
Slight improvement, 1 case +.  
Much improvement, 4 cases + +.  
Marked improvement, 2 cases + + +.

The case showing slight improvement also had Seminal Vesiculitis and is markedly improved since seminal vesiculotomy was done.

## CHART NO. 6.

## VI. Results according to intervals of treatment.

1. Treated at intervals of from 2-3 days, averaging 3 treatments a week.  
Unimproved, 1 case —.  
Slight improvement, 4 cases +.  
Much improvement, 5 cases + +.  
Marked improvement, 6 cases + + +.
2. Treated at intervals of five days.  
Unimproved, 10 cases —.  
Slight improvement, 21 cases +.  
Much improvement, 39 cases + +.  
Marked improvement, 44 cases + + +.
3. Treated at intervals of seven days.  
Unimproved, 0 case —.  
Slight improvement, 2 cases +.  
Much improvement, 4 cases + +.  
Marked improvement, 3 cases + + +.

In spite of the fact that the greater percentage of improvement was shown in cases treated at five day intervals, it was found that other cases showed no improvement unless the intervals were reduced. This goes to prove that no definite interval can be relied upon, as every case presents its individual peculiarity.

## CHART NO. 7.

## SUMMARY.

1. In the treatment of Chronic Prostatitis, a careful history must be taken, a thorough examination made and the patient placed under one of a number of routines, outlined to meet the pathological condition present and those that may arise.
2. In cases with a previous gonorrheal history, two or more massages should be done before a negative report can be given. Many cases giving a normal secretion on the first massage will show pathology upon the second or third massages.
3. In cases, accompanied by Tabes, the routine treatment, consisting of massage, instrumentation and instillations, received little, if any, benefit—in some cases positive harm.

4. The form of treatment should be based upon the amount of involvement of the prostate.

5. Prostatitis, complicated by Seminal Vesiculitis and Arthritis, receives the greatest benefit from massage, systematic stripping of the vesicles, dilatation of the posterior urethra, deep instillations, splinting of the affected joints and the use of stock vaccines. Extreme cases are best benefited by dilatation of the stenosed ejaculatory ducts, vasotomy or the radical seminal vesiculotomy.

6. In this series of 134 cases:

- 12 showed no improvement;
- 26 showed slight improvement;
- 47 showed much improvement;
- 48 showed marked improvement, with probable cure.

7. On the whole, all cases are very resistant to treatment, but the greater the length of time of intelligent treatment, the better the results.

8. Our experience has been that the most resistant cases will improve, if a sufficient number of proper treatments is persisted in and all complications looked for and overcome. With the ordinary endoscope lesions of the posterior urethra are not seen as well as with the cysto-urethroscope of Buerger and McCarthy.

9. In the average case, five day interval treatments have given the best results, although no stated interval can be accorded every case.

We wish to thank Drs. Hinman, McDonald and Partridge for their co-operation in preparing this paper.

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## CONTRACTURE OF THE BLADDER-NECK AND OTHER OBSTRUCTIONS THEREAT, EXCLUSIVE OF PROSTATIC HYPERTROPHY AND CANCER, AND THEIR TREATMENT.

By ROBERT V. DAY, M. D., Los Angeles, Cal.

While the literature deals admirably and abundantly with pathology, symptoms, and the classic Young's Punch operation, there are quite a considerable percentage of cases which present anatomical features and technical difficulties that require separate consideration from a surgical standpoint. It is not necessary to go over the pathologic anatomy or the symptoms except to state that there is in all a bar, a tight collar or a firm, hard, fibrous non-dilatable ring.

This means residual, stasis, back-pressure, infection, pyelonephritis, partial or intermittent retention—any or all—in fact prostatism sans prostate. Urologists the world over have devised methods, as the Bottini Operation—or the Chetwood improvement—and several others, to deal with this pathologic condition. It remained for Young with his characteristic genius to evolve the "Punch." The "Punch" operation, however—like all other good things—has its drawbacks. Sometimes the bar is thin and so very well defined that bleeding is slight; but usually there is a considerable bleeding for the first forty-eight hours, bladder tenesmus, and a very high temperature from the second or third to the sixth day in most cases. A large woven silk catheter—indwelling—from size 24 Charriere to 28 Charriere is necessary to prevent blood clots forming and being retained in the bladder. Being stiff and firm such a large catheter almost always causes suffering, frequently extreme. Of course continuous irrigation through a two-way catheter was practiced for a long time by every one. I had one patient—a carcinoma case—with an electrically heated and automatically regulated apparatus for eight days under continuous irrigation. But they are all troublesome and require the highest grade of intelligence and diligence on the part of the nurses and for these reasons are not always to be depended upon. I believe the bleeding is less but not very noticeably so, with the kephalin-coated catheters after the technique of Howard Cecil; certainly the febrile reaction is not lessened. There are again quite a few cases in which neither a Young's Punch—nor any other non-flexible metal instrument—can be introduced through the bladder neck from the meatus without using blind force and consequently producing false passages or dangerous tearing. I have been unable to find any reference in the literature to an open operation with Young's Punch. Even MacGowan, who was the first to use this open method and continues to do so in a limited number of cases and who is a strong believer in it, has published nothing about it except an occasional casual reference in other papers.

I think that we may conservatively say there are just four feasible and successful methods of treating bladder neck contracture of median bar.

1. First—and widely useful—Young's Classic Punch operation through and intact bladder and urethra.

2. MacGowan's Modification with the bladder opened supra-pubically or an incision through the prostatic, membranous, or bulbous urethra (usually the prostatic).

3. Bugbee's High-Frequency method.

4. A method devised by the author was described and cases reported at the 1915 A. M. A. meeting and published November 20, 1915 in the Journal of the A. M. A. This has a quite limited application. The conclusions drawn at that time, I believe, are sound. While the technique then was somewhat crude, the development of special electrodes has, in selected cases, made the procedure rather simple and precise for an experienced urologist.

To discuss in brief these procedures seriatim, too much can not be said for the unmodified Young's operation in properly chosen cases when performed by experienced urologists who have learned to avoid its dangers and pitfalls.

The open operation of MacGowan is more precise, avoids some of the dangers of the original method, accomplishes a most thorough removal of all obstruction, and insures a comfortable and safe convalescence by reason of the suprapubic (or occasional perineal) drainage.

Some years back I saw three cases of bladder neck contracture without any objective signs of stricture in the anterior or membranous urethra which offered no obstruction whatever to the punch until well into the posterior urethra. Repeated trials, after careful alypin anaesthesia, at introducing an 18 cystoscope—both convex and concave sheaths—were failures. Yet when these men were under spinal anaesthesia, opened supra-pubically, the hard fibrous ring dilated somewhat with the index finger, then depressed with the finger still in the bladder neck, the punch could be introduced with the other hand fairly easily. These were comparatively young men and are all perfectly well today and have no residual. I have seen also, a considerable number of cases diagnosed as perineal stricture where there was only slight stricture or none at all and operated perineally. The posterior urethra nearest the bladder neck was extremely coude. Many of these were operated by general surgeons who did not recognize the bladder neck condition. Some of these patients had had an external urethrotomy—one as many as seven. The punch with the open method effected a practical cure in all. Of course an external urethrotomy only, was a very simple procedure by any surgeon—since a large guide went well past the membranous urethra—but the operations afforded little or no relief from the symptoms. Any of these cases probably had only slight stricture at first; but rough instrumentation and the making of false passages had produced them. The old idea, that practically all cases of bladder-neck contracture take a sound or other metal instrument easily, I believe is erroneous. One sees many cases from 33 to 40 years old—usually consulting one for relative impotence—

which show a very coude posterior urethra making it often a tedious, distressing and difficult procedure to introduce even a small number 18 cystoscope or such an easily introduced instrument as the Geiringer urethroscope with the Luys Obturator. These cases had not as yet had any residual or if so it was not constant. But I cannot avoid the feeling that these are cases of prostatism sans prostate in the making. They are greatly benefited by dilatation particularly if this is produced by a cystoscope or any instrument which when well in the bladder is a straight instrument, thus depressing the bar. The residual when present often disappears for a considerable time following a few examinations or dilatations.

In my clinic at the Los Angeles County Hospital I have found it expedient for both the patient and the operator to have the Resident Urologist perform a suprapubic cystotomy with dePesser drainage in cases of impassable stricture in men 45 to 55 years of age, when a bladder-neck condition is suspected. Then in a few days we do an external urethrotomy over a retrograde staff. If bulbo-membranous stricture is present an external urethrotomy just anterior to it is done over any ordinary staff. These two are connected, it then being usually easy to find the line of cleavage between the adherent walls, a punch operation if necessary being done through the perineal opening with a finger or two in the bladder suprapubically as a guide. One is amazed at the rapid convalescence, quick recovery and lasting results of this operation. It may well be done at one sitting if one is fairly sure of the kidney function; but an acute partial or total retention that is not capable of being relieved by a catheter makes this uncertain and one must depend on the blood creatinin, blood urea or total non-protein nitrogen. Reliable data on these procedures is not always available at public hospitals.

Doubtless many readers will criticize the extra incision; but it stands for postoperative comfort, precise correction of pathologic condition and really for a shorter convalescence. Many of these cases—in fact most of them—in both private and County Hospital practice have been instrumented *ad libidum* by their own physician before going to the hospital and later by an intern in the hospital, with perhaps a beginning hematoma in the perineum. A perineal urethrotomy under such circumstances is usually an operation done in the dark; whereas a retrograde is quick, sure and exact, causes no unnecessary trauma, tearing, or false passage.

Let me repeat that this method of combined suprapubic and perineal incision is chosen only in cases of impassable stricture where a bladder neck contracture is suspected.

About four years ago I was called in an emergency to operate on a man thirty-five years old, already in the hospital with acute retention. He had had intermittent retention for several days. The night previous a metal catheter had been forced into the bladder under chloroform

anaesthesia. All sorts of catheters and filiforms refused to go. On the operating table I injected the urethra with methylene blue solution. A Young's perineal exposure was then done and an opening made in the prostatic urethra. I could insert nothing into the bladder—filiform, the finest flexible silver grooved director, small Kelly sounds nor Young's director sound. A suprapubic opening was immediately made and with a finger in the bladder the reason for failure below was very apparent—the internal meatus pointed in the general direction towards the abdominal wall but slightly curved so that it pointed rather towards the pubic bone. It was hard and firm as cartilage. With the greatest effort finger dilation allowed the punch to enter from the perineum. He was thoroughly punched, made a quick recovery and takes a large sound as easily today as a normal urethra and then only at intervals of months for insurance. Several other cases in private practice presented similar difficulties and the results were all good.

At the County Hospital one sees many of these cases if he is wide awake and they are not infrequently complicated by a real stricture of the smallest caliber at the bulbo membranous junction. They are not for the most part cases of simple bar, but hard cartilage—like unmistakable contractures that require the greatest force with the index finger to dilate, and then only with counter-pressure in the perineum. Such cases are usually urethrotomized externally and the neglect of the contracture accounts for many failures after external urethrotomy. In the old days, fifteen to twenty or more years ago, when an external urethrotomy was followed by dilation with the finger, Palmer or other uterine cervical dilators or incision of the bladder-neck floor with a Blizard, accounts for many otherwise unsatisfactory results.

These cases reported have all been very carefully studied and were neither carcinomatous, prostatic hypertrophy nor imaginary contractures. Of course our number at the County Hospital has been considerable—but one must remember that it is the second or third largest hospital in America and gathers many derelicts from the East as well as from the West.

I invariably do the punch operation at the County Hospital by the open method—almost always with a suprapubic opening. In private practice if a patient is not a first class risk as to lungs, heart, kidneys, or if he is a sensitive high-strung man and cannot stand pain I much prefer the open operation. In the strong robust laborer, artisan or phlegmatic man the original punch operation of Young through an intact urethra and a closed bladder, is the procedure of choice.

Bugbee's Cautery method has its very decided advantages and disadvantages. Recurring epididymitis, hypersensitive posterior urethras from inflammation, trauma or individual tendency to urinary fever offer barriers to its use. It is surprising, however, how much of a furrow may be produced



at a few sittings with a Bugbee's High-Frequency Electrode. The bleeding from the separation of the slough is seldom sufficient to be troublesome. But occasionally the bleeding and the bladder-neck site of the burning is often distressing since several sittings are usually necessary. It is seldom necessary to go to bed as there is little or no bleeding. The most annoying objection is that a percentage develop epididymitis and occasionally urinary fever which we believe to be a septicemia.

The author's method is a procedure precisely the same as the original punch operation except that the bar projecting into the fenestrum of the punch is needled with a small specially insulated electrode much after the manner of electrolysis of a wart or mole but using high-frequency current—d'Arsonval—being used to cook it and prevent the bleeding after it is punched away. After it is cooked, one must punch it out in order to remove the punch. The external reflected light (a Young's Light Carrier) is obviously necessary to see where one is needling. Moreover a good electric suction pump is highly essential to keep the field dry and do away with reflected light. The needled end of the electrode is parallel with the punch just as an ordinary electrolysis needle is inserted parallel with the skin. It is not only unnecessary but very harmful to continue this too far as the cooking is rapid and may extend too deep—much deeper than the bar. This method is useful in those with thin bars—in which wide-spread burning is unnecessary. It is I believe the simplest and best procedure for post-convalescent removal of small obstruction which we all occasionally have, such as tags of capsules, small pieces of prostate adhering to the bladder-neck or any small piece of prostatic tissue overlooked at the time of operation and producing a shelf or otherwise causing slight residual. It may be used to remove these pieces of redundant tissue at the posterior site, laterally or anteriorly. In the latter case the fenestrum of the punch must be rotated clear to the top, depressed very strongly and pulled upon until the teeth catch.

The so-called trap-door obstructions arising from the anterior portion of one or both lateral lobes or, as some believe, from the anterior lobe, were at one time dealt with by prostatectomy—if the gland could be shelled; or if not by rongeurizing it through a suprapubic opening. Unquestionably the best way is by punching through the urethra with the bladder open suprapubically and the punch rotated 180 degrees (that is inverted) and the fixing of the tissue in the fenestrum under digital guidance. If it is small the author's High Frequency method may be used through the urethra with an intact bladder.

In conclusion I may state that having personally used one or the other of the above procedures in nearly forty cases, if it were necessary to have a punch operation on myself and a good deal of punching was required, I should choose the open operation because of an easy convalescence, a thorough and concise removal of obstructions and avoid the high temperature and tenesmus that are not entirely without significance.

## THE LAY ANAESTHETIST.\*

By WALTER R. CRANE, M. D.

At a recent meeting one of our members read a paper entitled "The Lay Radiographer," a paper that was clean cut and to the point, and that the radiographic situation in Los Angeles certainly called for. A similar condition exists to embarrass and lower the efficiency of the anaesthetist, and I wish tonight to call your attention to the Lay Anaesthetist, who is not licensed to practice medicine or surgery in this state.

At the present time any one who has a little knowledge and a colossal nerve may give anaesthetics, provided he finds a surgeon who is willing to accept the responsibility for the anaesthetic in addition to his own responsibility for the operation. Unfortunately our state medical practice act is no more definite with regard to anaesthetists than it is to roentgenologists.

There are certain qualifications which every one who gives anaesthetics should possess:

*First*—The anaesthetist should have had a thorough training in medicine and surgery.

*Second*—The anaesthetist should have had a special training in the giving of anaesthetics, either in a hospital or elsewhere.

*Third*—The anaesthetist should have the general qualifications that are developed by the above training,—knowledge, experience and confidence; tact and patience in handling the patient; cool judgment in time of need. He should be cautious for his patient's welfare, but not afraid to keep his patient in the proper stage of anaesthesia. The anaesthetist should accept the responsibility for the patient's life, knowing that he is competent. He should act on his own initiative for his patient's welfare, regardless of advice from the surgeon or bystander. He should understand the patient's condition and the shock to be expected from the operation. He should choose the anaesthetic to be used and the preliminary medication. He should consult with the surgeon as the case requires and advise as to the patient's condition during the operation.

W. W. Keen, a surgeon of wide experience and international fame has said, "Next to the surgeon and even before the first assistant, stands the anaesthetist, holding the scales of life and death."

The trained anaesthetist recognizes a complication and knows the treatment.

All this and more is gained only by a full medical and hospital training, a training that at the best is none too thorough for the responsibility involved, and I would speak for raising the standards of education for the anaesthetist rather than lowering them.

The relation that the anaesthetist bears to the patient is analogous to that of the surgeon. The life or future well being of the individual may be jeopardized through the carelessness or ignorance of one or the other.

It is obvious that a layman cannot be trained to take the place of a physician without endangering the patient, and it is equally patent that the meager medical and surgical training that a nurse receives does not qualify her to give anaesthetics, except in case of emergency.

\* Presented to Los Angeles County Medical Association, October 16, 1919.

I wish to quote here from a paper by James Taylor Lewis, Counsel for the Medical Society of the State of New York. "The giving of anæsthetics is undeniably a phase of the practice of medicine as defined by law. As the law now stands, it prohibits any one without a doctor's license from giving ether, chloroform or other poisonous gas to a patient, except when directly and continuously supervised by a physician. Such direct and continuous supervision means just what the words express, and if a physician has to do this, he might as well give the anæsthetic himself. It would be a reduction to absurdity to have an experienced physician always at hand to directly and continuously supervise a nurse anæsthetist, in the statute's sense, and not administer the anæsthetic himself.

"The only justification for the giving of an anæsthetic by a nurse is an emergent or in some sense exceptional situation precluding the regular mode of procedure."

Mr. Lewis contends that criminal action should be brought to prevent the continuation of this practice in certain hospitals, not only because the law is being violated, but because human lives are being endangered. He states that the nurse who gives an anæsthetic must watch the pulse, must pass upon the strength of the pulse, the color of the lips and skin and other symptoms, and that all this is diagnosing the physical condition, and even diagnosing the presence or absence of disease, according to the definition of diagnosis on our statute books.

He further says, "The operating surgeon can give no attention to the effects of the anæsthetic, and if the nurse notices symptoms which indicate that the patient is going bad, the responsibility of taking action is hers, and she must prescribe."

He states also that in a suit growing out of the death of a patient where the surgeon had voluntarily employed an anæsthetist who was not a licensed physician, he would certainly be held responsible.

Also that he is of the opinion that any nurse who undertakes to give an anæsthetic in the usual way that it is given in hospitals every day, at the bedside or in the anæsthetizing room, is certainly practicing medicine. She surely undertakes to look after the life of the patient and holds herself out as being able to diagnose a physical condition, whatever it may be. Emergency treatment too becomes a matter of grave importance, because in the midst of the administration of the anæsthetic, if signs develop which show approaching collapse, instant treatment is indicated. Not only does the nurse by giving an anæsthetic attempt to diagnose the condition and interpret the signs which the patient may exhibit, but she also represents herself as being able to instantly administer stimulants, or some remediable agent to save the life of the patient.

It is a woeful lack of foresight that the giving of anæsthetics, a specialty that is vital to the patient's welfare, should be allowed to fall into the hands of those who have not had the preliminary medical or essential anæsthetic training to make them competent for this work.

The patient who has come for relief and has submitted himself to the skill of the surgeon has a right to expect a skilled anæsthetist who has had as thorough a training as the surgeon. Would it not behoove the surgeon to ask himself, "What would I want for myself or family, would I trust my life to a nurse or lay anæsthetist, or would I demand the best medically trained expert obtainable?"

From an economic standpoint, what does it profit the anæsthetist to spend his years in college and hospital training only to compete against a trained layman or a nurse? It is to be regretted that a small part of the profession the country over has encouraged the lay anæsthetist by employing nurses and trained office girls for this important work. This is equally to be deprecated whether the surgeon pays a monthly wage and pockets the anæsthetic fee himself or allows the anæsthetist to collect the fee.

Mr. Lewis again says, "In utilizing her service as a salaried attache, certain surgeons and hospitals have been and are now enabled to undersell the anæsthetic services of their confreres and competitors. Fortified with endowments, such individuals and institutions have not hesitated to reduce anæsthetic fees to an irreducible minimum,—to a basis upon which no self-respecting, independent, qualified anæsthetist can make a decent living or maintain an ethical standing in his profession. As for underpriced fees, especially when they are accorded patients who are financially able to pay proper fees, these fees constitute an economic crime against the welfare of the entire profession."

Just a word as to the fees for anæsthetics. I realize that this is somewhat of a delicate subject. The patient usually comes to the surgeon, who feels that he knows best the fee to be collected by the anæsthetist. There is a wide variance of opinion as to the value of the anæsthetist's time and skill. The fee should be commensurate with the service rendered. There should be a reasonable minimum fee on account of the skill required and the responsibility assumed, and the maximum fee should be in direct proportion to that obtained by the surgeon.

It may be that a scarcity of civilian physicians during the recent war has led to an increase of this practice of employing lay anæsthetists. That crisis is past now. The training of lay anæsthetists was discontinued by the government with the signing of the armistice. It was only a war measure and is no argument for the practice. Dr. C. G. Child, Jr., of New York says, "It would be an insult to our intelligence to ask us to believe that a nurse, untrained in medicine, can in a six months' or sixteen months' course learn to administer an anæsthetic as well as a trained medical man who devotes his life to it. Why should you expect it in anæsthesia? You don't expect it in any other branch of medicine."

Some will say that this large hospital or that well known medical center employs nurses or lay anæsthetists. That certainly does not excuse the practice if it is not a good one.



Simply because a nurse or a number of nurses in the United States in different hospitals have been successful because of their being associated with members of the medical profession, or because they have had opportunity to observe, or have given thousands of patients an anæsthetic and learned how to give it, and are familiar with the signs of the unfortunate results which may ensue, is an extremely poor reason for saying that all nurses, however qualified, may proceed with the administration of anæsthetics, and so endanger the lives of patients.

Dr. J. P. Flagg of New York says, "There is no question but that the nurses at Rochester and Lakeside do beautiful anæsthetic work, but the permission to do this work opens the way for innumerable abuses by others who are not able to do anæsthetic work as they do. It is a question of the morality of the practice and not a question of the expediency."

For years the professional anæsthetist has been recognized in England, but it has only been recently that this specialty has developed in the United States, although the first anæsthetics were given here, and it is here that the greatest advancement in the science has taken place.

The use of the unlicensed anæsthetist is practically non-existent in England, France, Germany, Austria, Russia and other European countries. In England the British Medical Association, the Royal Medical Society, the British Dental Association, the British Society for the Advancement of Science, and the General Medical Council, etc., have all endorsed legislation restricting the administration of anæsthesia to licensed practitioners of medicine or dentistry. The Ohio, Kentucky, West Virginia and Georgia State Boards have ruled against the nurse anæsthetist as illegal. In other states legislation is now being agitated. There is little difference really, in the medical laws of the states which have attempted to keep up with the procession of scientific advancement. It is largely a matter of the interpretation of the law.

Definite standards in anæsthesia have been adopted by most medical schools for their graduates and interns. The State Board examination for certificates to practice medicine demand competence in anæsthesia.

Every advance and discovery in anæsthesia has been made by a physician, surgeon or dentist specialist in anæsthesia.

Dr. J. A. Zabrocki of Chicago says, "The nurse anæsthetist has proven practical mechanically, but scientifically lacking and dangerous," and Dr. Bevan adds, "No matter how well trained she (the nurse), is not prepared to give instruction nor to add to the existing knowledge of the science by properly conducted research."

In all its history no nurse has contributed anything of value to the science or art of anæsthesia, and it is likely never will. A complete review of all the literature on anæsthesia shows since its discovery to date only three papers from nurse anæsthetists.

Why not be fair to ourselves, our patients and our colleagues who have had competent training as anæsthetists and have selected anæsthesia as their specialty?

We are all working together to raise the standard of medical practice in our state. We have an association formed for the purpose of passing good medical laws and thereby protecting the public and ourselves. We are trying to limit the pathies and practices which are in reality only short cuts to the practice of medicine. Why let down the bars where anæsthetics are concerned?

#### Discussion.

The Chairman, Dr. W. T. McArthur: That is a very valuable and interesting paper and it is now open for discussion. I would like to allow as much time as possible because Dr. Crane was kind enough to withdraw on a previous occasion when it was necessary to bring up other important matters. If the discussions are brief and to the point we can have a good many, and I would suggest that we limit the opening discussion to five minutes and the others to three. I presume there will be arguments pro and con, so I will ask some one to open the discussion for the pros.

Dr. Andrew Stewart Lobingier: Dr. Crane requested me to open the discussion. It is very easy to take sides on a question of this kind. I presume pretty near all of us have been guilty of having used a lay anæsthetist at one time or another. Dr. Crane has presented some very good arguments this evening, presumably unanswerable; they impressed me that way at least. I will have very few words to say to you, and they will be particularly with reference to the tendency all over the country, which has been obvious in the last five or ten years, to standardize medicine and surgery; I mean to say standardize the requirements. Not necessarily the legal, and not necessarily the ethical, but particularly the scientific requirements which will qualify a man to limit himself to a specialty, and justify him in that assumption. We have had two papers on specialties, that is to say, we have had two papers discussing what the qualifications should be for men and women to practice along special lines. That simply shows a disposition on the part of the association, the members of the association, to consider what is very clearly the tendency of medical education in America today. I think it is more manifest here than anywhere abroad. We must have standards to justify our claim for practicing a specialty, and if the standards are adopted, then we must adhere to them.

Anæsthesia is a part of medical practice, and it should be assumed only by persons who are so thoroughly trained and qualified that they are able to interpret any pathological or physiological change which may occur while the patient is under anæsthesia. They should go further; they should be able to form an intelligent opinion as to the ability of the patient to receive the anæsthetic, whatever the choice of anæsthetic may be. That implies a very intimate acquaintance with physiologic chemistry, and pathologic chemistry of secretions, the condition of the heart, respiration and so forth. Of these things he should have an accurate knowledge.

I am perfectly well aware of the fact that a person who is ignorant of these things can get through. They are getting through all the time. But that is not the question. The question before us is the standardization of medical practice, because the paper to-night had to deal with just that subject, and that is what I am discussing.

Eight or ten years ago I was asked to discuss post-graduate degrees in medicine, in a symposium on that subject, on the standardization of medical education in this country. I took the position that

by reason of the upgrowth of medical colleges in this country, we could eventually have standardization of specialties, and in order to have those specialties standardized it would be necessary to pass certain examinations, and I suggested that those examinations would probably be conducted by the federal government, or at least by the states, through commissions delegated by the federal government.

That after a man graduated in general medicine, he would have a bachelor's degree, instead of a doctor's degree, and after graduation he would study a specialty, and his proficiency in that specialty would be passed upon by a board, and then he would receive his doctor's degree, just as a man takes his degree in philosophy. Then when he passed that examination, that federal examination or an examination at least conducted under federal supervision, he would be entitled to practice in any commonwealth in this republic without further examinations. He would be known as a surgeon, or ophthalmologist, or obstetrician, or whatever it might be. And I believe that we are tending in that direction. And the anaesthetist will be one of those specialists and he will know considerably more about his work in a more precise and accurate way than he does now.

Dr. A. J. Scott, Jr.: In the few remarks I will have to make I will deal more particularly with the lay anaesthetist as applying to the giving of anaesthetics to children. These lay anaesthetists that I have seen, when they come to administer ether to infants and even older children, for major operations, do not seem to appreciate that there is a considerable difference between the lung capacity and the nervous system of a child as compared with an adult. I have seen these little ones get pretty cyanotic, and show signs of collapse before the nurse seemed to appreciate what was going wrong.

If it was our own youngster that was to be given an anaesthetic, it would be the best graduate physician in town, practicing as an anaesthetist, that would be called. If it was our own wife, or our own self, we would not take any chances with a non-medical or nurse anaesthetist.

Personally I think we are doing our patients a great wrong to subject them to the dangers of anaesthesia in the hands of a person who is not properly trained. Granted that there are a few highly trained and well-qualified nurse-anaesthetists, still where there is one so qualified there will be many who are not, and it is these many we ought to get after.

In reply for a minute to Dr. Lobingier's remarks on standardization, it may be of interest to the Association to know that in Minneapolis, Dr. Julius Sedgwick, in his Pediatric Clinic is trying to train men particularly with an extra three years course after they graduate, and when they get through they are supposed to be and really are qualified Pediatricists. And there really ought to be something of that sort for anaesthesia, because it seems to me personally, from an experience of a number of years, that anaesthesia is a high-grade specialty, and one that requires a good deal of thought, and a good deal of care; and it does not seem right to take chances with a person who has not had full medical training.

Dr. C. P. Thomas: Dr. Crane and Dr. Lobingier have pretty well covered the arguments and I do not want to unnecessarily prolong this discussion, but I do feel it is the duty of the surgeon, to see that a competent anaesthetist is employed.

I recall the remark made by the late Joseph Price who said that the anaesthetist brought the patient to the brink of the precipice and held him there until the surgeon finished, and if he did not push the patient over, he had a good chance to get well. That is true. As an operating surgeon of several years' standing, I look back upon some of the most unpleasant experiences which I ever had in the operating room as being due to the inefficient administration of anaesthesia.

There are three or four standpoints from which we should consider this matter. From the scientific standpoint there is no room for argument. The anaesthetist should be competent to examine the patient, and decide how much anaesthesia the patient should have and how long he should be able to stand it, and he should be able to prescribe quickly and without annoying the surgeon unduly, for any complication that may arise. He should be able to recognize quickly the symptoms of an overdose of anaesthetic. All these things mean a thorough knowledge of medicine.

From the economic standpoint, if the medical profession stands for anything, it stands for each other. No one else stands for us very strongly. We should enable a number of our young men and women to qualify themselves to make an honest living, instead of putting it in the hands of nurses who are already insufficient in number and who are planning to raise their prices to \$35 a week and only twelve hours' service, so that the first week, with two special nurses, will cost the patient \$90. So it seems there is no excess of nurses, so why take from that already short number of nurses a half dozen for every city half our size and put them in the operating room to give anaesthetics? In other words give medical men and women a chance.

From the legal standpoint I should very much hate to be called upon to defend in suit for an anaesthetic death, where the anaesthetic had been given by a nurse. And I think all of you feel the same way. For anaesthetic deaths do occur, even in the hands of the best of them.

As Dr. Crane has wisely said, it is a short cut to the practice of medicine. Are the medical profession going to tolerate and encourage this thing, for the sake of a few paltry dollars, usually at the hands of men who are making enough, if not too much already, or are they going to train a number of men and women with medical education how to give anaesthetics properly? If you have a layman do what a doctor should do, it tends to lessen the respect of the community for the doctor, and to belittle and lower the practice of medicine.

Dr. Phil. Boller: I think Dr. Scott mentioned a very important point when he pointed out if one of your family were seriously ill and required an anaesthetic, you would want the man best qualified in that particular line. It can be taken as a broad general rule that the man best qualified in a specialty is the man who has had the best basic training in its fundamentals. This certainly cannot be said of the lay anaesthetist.

I think it would be interesting to inquire into the real reasons which sometimes lead surgeons to employ lay or nurse anaesthetists. Often they have in their office a girl who does office work, and some of the typewriting and gives anaesthetics, and probably does some laboratory work. If you inquire into the economic status you will find that the nurse pays for her keep. If she gives a goodly number of anaesthetics she pays her salary, and the doctor even gets a little bit of rake off. I have often wondered if the doctor in selecting a lay or nurse anaesthetist for his patients is giving these patients the same honest consideration that he would a member of his family. Is he choosing for those patients the anaesthetist that he considers best qualified? If he does so think, it would appear to me that the proper course of training for the specialist in anaesthesia would be a three years' course in a hospital carrying bed pans and doing catheterizations, and so forth, as a preliminary, with all the opportunities for study and observation which such institutions afford.

Dr. O. O. Witherbee: While listening to this paper and these discussions, my feelings have been similar to those of the man at the revival meeting who felt as though every remark made was aimed directly at him.



First I want to subscribe to the points brought out by Dr. Crane's paper, and what Dr. Lobingier has said regarding the standardization of the medical profession in its various branches, and what Dr. Scott has said regarding the ability of the anaesthetist to decide the quantity, kind and amount of anaesthetic to be given, especially to children and then also to what Dr. Boller has said regarding the use of the nurse anaesthetist.

It is generally known by my friends that I have been using a nurse to give my anaesthetics. I want to remind you right here that we are influenced in the medical profession as in others, by cause and effect. I did not begin to use a nurse to give anaesthetics because I liked the idea. It was because I could not at times get any one competent to give anaesthetics for me, and as a result major operations, to say nothing of catheterizations and so forth, had to be deferred. I know that there are precious few of you that would want to get on the table and have one of these nurse anaesthetists put you to sleep. But there are nurses and nurses. I have been practicing thirty years and of course have had occasion to give a great many anaesthetics.

I gave many hundreds of anaesthetics before I received my diploma. I gave them for the father of Willis Anderson and he usually stood close enough to hit me with the blunt end of some bone instrument if I didn't do it right. I do not claim to be able to give anaesthetics better than anyone else, but I do believe that I know something about it, and I believe that I can teach some one else to do it. I never had but one nurse give anaesthetics for me, and she has been doing it for a long time. I have so far taught anaesthesia to only one lay person, and that is the one who is doing it for me now. This nurse has in the last six months given anaesthetics to two of my children, and I allowed her to give it to them in the ante-room without giving her any observation whatever, as I had every confidence in her. But as I said, necessity arises and until some adjustment is made, whereby I can get an anaesthetist who is not doing a thousand and one other lines of work I will have to get along with my nurse anaesthetist. If you will show me where I can get a properly qualified anaesthetist, and get him when I want him, I will stick! But you couldn't hire me to take an ordinary nurse to give an anaesthetic. I would not ask any nurse to give an anaesthetic for one of my patients that I would not call for one of my family.

Dr. George Piness: I just want to answer one observation of Dr. Witherbee's with respect to getting competent anaesthetists. Dr. Witherbee should call his anaesthetist in time so the anaesthetist would know ahead that he was going to operate, instead of ten minutes before the time. If he would do that I am sure he would have no trouble whatever in procuring a proficient anaesthetist.

I think the surgeon underestimates the anaesthetist because he does not amount to anything except when he is going to give an anaesthetic,—the surgeon being the most important person there,—but if the surgeon would get in the habit of employing one anaesthetist I am sure he would always have that fellow there when he wanted him. The reason Dr. Witherbee was unable to obtain competent anaesthetists was because he used five or six at the same time, or employed a general practitioner.

It is a fact that most anaesthetists do something else besides anaesthesia but the reason for this is that the surgeon has never encouraged the anaesthetist up to this time. If surgeons would encourage specialists in anaesthesia they would find that there would be plenty of them devoting their time to that branch of medicine.

As to the nurse anaesthetist, from an economic standpoint, I know for a fact that in this city

there are eight nurses employed by doctors on salary, and every one of these doctors has bills put in by the nurses, which are collected by the doctor. If any of these men are members of the College of Surgeons, they are certainly guilty of a breach of ethics of that College.

We have another anaesthetist in the city who solicits business from the doctors, which is absolutely practicing medicine without a license! If that is to be encouraged, I think every other branch of medicine will probably have the same factor to contend with in the near future.

As far as the nurse anaesthetist taking an anaesthetic herself is concerned, I myself administered the anaesthetic to Dr. Witherbee's nurse! I know she would not have a nurse give her an anaesthetic. She told me so.

As far as specialists go, in this part of the country we have now in this city, a society, and another has been organized in San Francisco, the members of which are devoting most of their time to anaesthesia.

Most operations occur in the morning, and those who are members of this society make it a practice to reserve their mornings for the giving of anaesthetics, and they can always be had in the mornings; and if Dr. Witherbee ever gets to the stage where he can't get one, if he will let me know I will see that he is furnished with a good reliable anaesthetist. (Applause.)

Dr. Rogers: If the surgeons were willing to pay the anaesthetist suitable fees, there would be no difficulty in securing competent anaesthetists. It is undoubtedly a medical specialty and should not be left to lay anaesthetists.

Dr. George L. Cole: Since this matter has come to be one of such widespread interest and is calling forth such general discussion, I feel with Dr. Thomas that from the legal standpoint it would be a serious matter to be called upon to defend a surgeon in a case growing out of anaesthetic accident or death, where he had voluntarily employed a nurse anaesthetist.

I should very much dread having to defend Dr. Witherbee or any other surgeon under such conditions, as I feel that I would be in no position to testify that the doctor was justified in retaining a nurse anaesthetist.

Dr. Bullard: I have given a few anaesthetics in this city in the years past! I think the reason why anaesthetists do not get along better is because they do not have the proper support. They have to go out and do other things, to make a living. But now we are living in an age of specialties and I think that anaesthetists should have special training, but in order to get people to undergo that special training you will have to treat them right, and make it an object to them. Give them the proper fee. And I think that the proper fee should be at least ten per cent. of the surgeon's fee.

Dr. Anstruther Davidson: We are listening to a great deal of talk on this matter this evening, but is it getting us anywhere? What about legislation on this question?

The President, Dr. McArthur: The League for the Conservation of Public Health is interested in this matter.

Dr. Eleanor Seymour: Since Dr. Davidson has spoken of legislation, would it be in order to introduce a motion at this time?

The President, Dr. McArthur: Perfectly so!

Dr. Eleanor Seymour: Then I present this motion. "Resolved:—That the Los Angeles County Medical Association go on record as in favor of the limitation of the practice of anaesthesia to regularly licensed physicians and surgeons."

Dr. A. J. Scott, Jr.: I second the motion.

The President, Dr. McArthur: Because of the great interest manifested in this discussion, I will call for a rising vote. All those in favor of the motion as made will please rise.

All present arose and the President declared the vote unanimous.

Dr. Crane: In closing the discussion I would like to state that I do not lay claim to being a specialist in anaesthesia. My work is such that I do not have the time to devote to anaesthesia. I do claim interest in the specialty,—the interest that every one who does any surgery should have in the welfare of his patients.

Dr. Lobingier states that he has in times past used nurse anaesthetists. There are few of us who have not. We have all been guilty of practices in the past which we have resolved to better in the future.

Standardization of course we are working for. Even surgery might well be standardized in as much as a prominent surgeon has promised us he could train a nurse in a few months to do expert abdominal surgery! That does not justify the nurse anaesthetist or even the nurse surgical assistant!

I have nothing to say against the nurse having a knowledge of anaesthesia. She may need it some time, just as she may need some knowledge of medicine or surgery.

I have known of more than one instance in which a surgeon who employs a lay anaesthetist, when he himself was to undergo an operation, requested an expert medical anaesthetist.

Dr. Witherbee asks if there are physicians who limit their work to anaesthesia. There are a number who do, and many others who have special skill and knowledge as anaesthetists. That is begging the question. We might as well ask "How many surgeons have we who do surgery alone, or how many obstetricians who do only obstetrics?"

Anaesthesia is a medical specialty, a part of the practice of medicine and as such should be recognized by the profession, above all.

## REPORT OF EYE LESIONS DUE TO FOCAL INFECTIONS.\*

By LEON WALLACE MANSUR, M. D.,  
Los Angeles, Cal.

I have a number of cases of eye lesions due to focal infection which I think will be interesting to report at this meeting.

We have come to recognize focal infection as one of the most common causes of a great number of acute ocular inflammations.

In eye work particularly. This has made it possible practically to stop at once by simply removing the cause, attacks that were formerly treated for weeks and sometimes months.

It is not so very many years ago that whenever a case of recurrent iritis, episcleritis, or chorio retinitis came in, they were thought to be due to syphilis or so-called rheumatism and we can most of us remember how long these cases often dragged out in spite of all the treatment we could think of, and often with disastrous results.

Now when a patient comes in with an acute inflammatory process, our first thought is as to the cause of the condition. The local symptoms are treated as the condition requires; we send the patient to have his nose and accessory sinuses looked over; his teeth examined; if these are found all right, he then goes to his family physician for a further overhauling. In this way we rarely fail to find the cause of his troubles, and on its being taken care of, his local condition improves.

In these cases to be reported, the greater number were recurrent conditions which had dragged on for months in the previous attacks with the usual treatment for the local symptoms and which cleared up at once or showed marked improvement as soon as the cause was located and removed.

Now with the focal infection gone we have every reason to think there will be no further recurrences.

So much has, and is being written at the present time on focal infection that I will not bore you with a description here. It is sufficient to say that we mean by it, a pocket of infection somewhere in the body from which absorption is taking place, with a resulting toxemia as the cause of our eye disturbance.

I should like, however, to mention some of the foci we have found, all of which will not be spoken of in the cases reported.

The tonsils have been the most common causes of our infections. The teeth next, either from pyorrhea or root abscesses. (I should like to add here that in a number of cases where the X-ray was negative, abscesses were found at the roots of the teeth when they were removed on account of pain or sensitiveness. This happened in one of the iritis cases—a three-pronged tooth having an abscess at each root although the plate, which seemed a clear one, showed nothing.)

The maxillary antrum, frontal sinus, ethmoid and sphenoidal sinuses have been found to be the cause of some of our choroidal cases.

Colon bacillus cystitis has caused keratitis and chorio-retinal disturbances. Gonococcus infection of the urethra has long been known as a cause of non-purulent conjunctivitis which has only gotten well when the urethritis was cured, and also of keratitis and iritis.

We should also include intestinal absorption from chronic constipation among our foci, as frequently our conjunctival inflammations and blepharitis cases clear up at once on its relief. One case of cataract which had gone to serious disturbance of vision cleared up on correction of constipation.

### Chronic Conjunctivitis and Blepharitis.

Case I, 2613—Mrs. S. R., 39.

The patient came in with a chronic conjunctivitis and blepharitis. It had been treated for years without relief. The conjunctiva was thickened and covered with fine granulations. The lid margins were thickened and covered with crusts. The patient suffered from a chronic constipation and drank very little water. She was sent to Dr. Harold Smith for general treatment. He found aside from the constipation that the patient had a cystitis. The bowels were regulated and the cystitis treated which gradually cleared up. For local treatment, hot fomentations were ordered four times a day, followed by a collyrium of zinc sulphate and boric acid, and a 2% yellow oxide of mercury ointment applied to the lid margins at night. As the cystitis and constipation cleared up the eyes became quiet and there was no further trouble. The patient reports that it is the first time for years that her eyes have been comfortable and free from irritation.

### Episcleritis.

Case II, 2512—Mr. A. B. McA., 38.

December 21, 1917. The patient came in with a small area of episcleritis above the cornea. He was referred to Dr. John Brown for tonsil examination as he had some sore throat. The tonsils were found full of pus which was squeezed out.

\* Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.



The eye was worse that night. The next morning clearer; quieter for several days. The patient was told that he should have his tonsils removed.

December 27. Came in this morning with more inflammation and pain than previously. Dr. Brown expressed 1/2 dram of pus from each tonsil.

December 28. Pupil sluggish this morning. 1% atropin instilled. In twenty minutes pupil dilated slowly to temporal side. In a few hours was fully dilated. Dr. Brown expressed more pus today.

December 29. Eye seems quieter this morning. 1% atropin instilled.

December 31. Considerably quieter to-day. 1% atropin instilled.

January 2, 1918. Eye is about same. Patient to have his tonsils out.

January 5. The eye is not as quiet to-day. 1% atropin instilled.

January 12. The tonsils were removed on the 8th. Throat is feeling fairly sore to-day but the eye is fairly white and quiet.

The eye rapidly cleared up and has given no further trouble.

#### Recurrent Ulcer of the Cornea.

Case III, 3014—Mr. H. H. R., 33.

I saw this patient August 2, 1918. He had been treated for recurrent ulcers of the cornea for several years. Treatment has been local applications of iodine, hot fomentations, and a collyrium of zinc sulphate every few hours during the attacks which have always lasted several weeks.

August 5. Patient was better yesterday but worse to-day with new points of infiltration. He was sent to Dr. J. M. Brown who reported the tonsils chronically inflamed and advised their removal. A considerable amount of pus was squeezed out, and the throat was treated.

August 6. The eye was much quieter this morning. The patient did not wish to have his tonsils removed at this time, but the throat was treated every day for a week, by which time the tonsils were clean. The ulcers were practically healed on the 9th and the tonsils were to be removed later.

The patient reports this attack was shorter and less severe than the previous ones, which we think was due to treating and cleaning up the tonsils.

#### Recurrent Ulcer of the Cornea.

Case IV, 2288—Mrs. C. W. H., 41.

February 5, 1918. Patient has had several attacks of ulcer of cornea. Is just recovering from an attack in the right eye. At present the eye is fairly quiet. She is using yellow oxide of mercury ointment and 1% atropin. The pupil is widely dilated. She was ordered to stop atropin and continue with the ointment.

February 12. Yesterday the eye again became irritable. Three new points of infiltration were seen in the cornea. 1% atropin, hot fomentations and ointment at night were ordered.

February 15. The ulcer was extending.

February 17. The ulcer was extending still further. The patient was questioned as to any trouble with her nose and throat. Says the nose is running much of the time but thinks it due to the eye. She was sent to Dr. J. M. Brown for examination, who reports chronic purulent ethmoiditis. He began treatment of this condition and advised operation later.

February 23. The eye is considerably quieter.

February 28. The eye is much quieter to-day. Nose also improved. Still continuing treatment.

March 3. The eye is fairly white and quiet. Nebulous condition clearing.

March 7. The eye is quiet. Going home in a few days and is to have nose operated on there. To keep up the treatment in the nose until she gets home. In this case when the condition in the nose was quiet the eye promptly ceased to trouble.

#### Irido Cyclitis.

Case V, 2497—Mr. J. N. L., 36.

July 13, 1917. The patient noticed his vision blurring for about a month in the right eye. It has gradually grown worse till he can only see shadows now. There is ciliary injection, deposit in Descemet's membrane. On dilatation of the pupil the vitreous was found filled with a fine dust, massive floating opacities and webs. No view of the fundus was possible. He was sent to Dr. J. M. Brown who reported O.M.C.C. chronic tonsils filled with pus. Dr. Brown advised the removal of the tonsils at once. The patient was given 1% atropin to use three times a day and 5% dionin at night. The tonsils were removed July 19.

July 24. Patient thinks the vision is somewhat clearer.

July 31. The vitreous is clearer. Can get fundus reflex to-day. Eye is decidedly quieter.

August 7. Dilated the pupil. A good fundus reflex is seen but no fundus detail. Descemet's membrane is clearing and the vitreous is decidedly clearer.

August 13. The condition is still improving. The patient was not seen until October 10. The condition is still slowly clearing up. It is a question whether this eye will ever entirely clear as the process had gone too far before treatment was instituted. The condition stopped getting worse, however, as soon as the tonsils were out, and was steadily improving when the patient returned to Arizona.

#### Recurrent Iritis.

Case VI, 3124—Miss B. P. S., 46.

Patient first seen on November 6, 1918. She has had several attacks of redness and pain in her eyes during the last year. All have quieted down under home treatment. About a month previously the left eye was painful, quieted down in a week's time similarly. The left pupil is tied down above with adhesions and dilates below. Right eye acute iritis. The aqueous is turbid—the pupil does not react to light. There is ciliary injection. 2% atropin was instilled twice in one hour. The pupil was tied down in its whole circumference. 5% dionin was instilled. To use hot fomentations and 1% atropin every three hours at home.

November 8. The adhesions above have broken away but still hold below. On account of her teeth she was sent to Dr. A. S. Cooper who reports extreme pyorrhea and thinks all the upper teeth should be removed, and some of the lower.

November 11. The right eye is still very angry. The left eye is becoming irritated. She was ordered to have the teeth out at once.

November 25. Has had all the upper and three of the lower teeth removed a week ago. The eye immediately began to improve and is fairly quiet this morning. To stop all treatment.

December 20. Both eyes are quiet and have remained so.

January 4. V. O. D. + 1.25 = 20/13.

V. O. S. + 1.25 = 20/13.

Ordered glass to-day.

#### Recurrent Iritis.

Case VII, 1254—Mr. J. O., 35.

I first saw this patient on August 14, 1913. The attack started one week ago on the train. This morning the left eye is intensely injected. The pupil reacts to light. The lids are swollen. Hot fomentations. A collyrium four times a day of zinc sulphate and boric acid.

August 16. The eye feels better. The pupil is sluggish. 1% atropin instilled. Pupil dilates readily.

August 18. Patient drove auto three hours yesterday. The eye is very painful this morning. The pupil is sluggish. 1% atropin instilled. 2-1/2 dionin.

The pupil opens slowly with two tiny adhesions stretching. Atropin 1%. Hot fomentations every three hours were ordered.

August 19. Patient had a comfortable night. The pupil is well dilated this morning. This condition dragged along till September before quieting down.

November 20, 1918. The patient returned. He has had no trouble since last seen until about a week ago when the left eye started to bother again. It was red and inflamed and the iris sluggish in reaction. 1% atropin instilled. The pupil dilated at once. 1% atropin three times a day. Hot fomentations were ordered.

November 21. The condition is not as good this morning. The patient was sent to Dr. Montgomery for a throat examination. Dr. Montgomery reports pus in both tonsils and advised their removal at once. They were removed the following morning and the patient was not seen again until December 6. The eye immediately began to quiet down after the tonsils were removed and is fairly white and quiet to-day. All local treatment was stopped.

December 12. Eye white and quiet to-day.

December 27. Has had no further trouble.

#### Recurrent Iritis.

Case VIII, 12845 (Dr. A. C. M.)—Miss A. B., 36.

First attack 1913. Second 1916, in April. Third November 1916. Another in May in 1917 lasting two or three months.

I first saw the patient on December 4, 1918, with a history of pain in the left eye for the past few days. The eye was congested and the iris discolored. 2% atropin was instilled. The pupil only dilated a little above. On questioning, the patient apparently has chronic tonsilitis. She was sent to Dr. Montgomery for an examination, who reported the tonsils were full of pus. We explained to the patient that this was probably the cause of the recurrent inflammation in her eye, and advised immediate removal as otherwise these attacks would continue. Hot fomentations and 1% atropin were ordered every four hours. The patient had the tonsils removed and the eye immediately began to quiet down and treatment was gradually discontinued.

The patient was seen again on December 30. Within a week the eye was white and quiet and has practically been so since the tonsils were removed.

The patient says this is the shortest and least painful attack she has ever had.

#### Recurrent Ulcers Cornea.

Case IX, 2510—Mr. F. J. L.

Was first seen in July, 1917. There was a history of gonorrheal infection two years previously with severe complications. The patient was in the hospital several months with perineal drainage for prostatic abscess. One year after this he had corneal ulcers which were very stubborn in healing. He was having some urethral disturbance at this time and under treatment. The left eye had been bothering for a couple of days. There was a small area of infiltration in the lower part of the cornea, which was soft and pulpy. It was touched with tincture of iodine and treated with a collyrium of zinc sulphate and boracic acid, and yellow oxide of mercury ointment for the next two weeks when it quieted down.

He was seen again on June 19, 1918, with a similar recurrence following an acute exacerbation of his urethral disturbance. I only saw the patient twice at this time as he left for Mexico.

He came in again on April 4, 1919, with a new infiltration in the cornea following a fresh urethral infection and reports having had several recurrences during the past year. The case is still under treatment but always clears up with the disappearance of the urethral infection.

1109 Brockman Bldg.

#### MULTIPLE PRIMARY TUMORS.\*

By J. C. BLAIR, M. D., San José.

The great majority of malignant tumors occurring in the human body are of one type only, either sarcoma or carcinoma, and moreover, they appear to originate from one focus only, whether a single cell or a group of cells. This mode of origin was formerly considered practically the only way in which tumors originated. A single cell, or group of cells, took on a form of malignant degeneration, increased in number, became differentiated from the tissues surrounding them and eventually formed metastases. The original focus was considered to be the sole point of origin.

This view was later controverted by Peterson, who showed in the study of a case of mammary carcinoma, that the focus of origin could be multicentric. He made serial sections of the tumor, reconstructed them in wax, superimposed the various layers, one upon the other, and by cutting away the stroma, had a model of cellular elements of the tumor. He was thus able to show that these cell masses, spreading out in all directions had several independent points of origin. Indeed, Peterson takes the ground that such a pluricentric method of origin is the rule, rather than the exception.

Wooley<sup>1</sup> reports a case of adrenal new growth, where the new formation can be seen springing from several distinct areas in the cortex. It is not very frequent that we can prove such a multiplicity of points of origin. Usually the growth has advanced to such a degree that there is only one large mass. In the adenomatous and adeno-carcinomatous growths of the ovary (where practically always both organs are involved), at operation, one only may seem to be involved with no other secondary growth. However, if the other be allowed to remain in situ, it frequently must be removed at a secondary operation and then presents the same type of disturbance.

Case 1. The case which called my attention to the subject of multiple tumors, was that of a man who presented a melano-sarcoma of the mediastinum, with a primary carcinoma of the esophagus. The patient, age 56, was admitted to the hospital complaining of difficulty in swallowing, accompanied by substernal pain of increasing intensity, with the recent onset of difficulty in respiration. His trouble began nine months previous, when he had a painful sensation upon swallowing. This difficulty in swallowing progressively increased. Vomiting also began and was almost a daily occurrence. After the passage of bowries, he was able to swallow better for a time. Six months later his voice became hoarse and this condition gradually became worse. He complained of pain beneath the sternum and at a corresponding area in his back. This was worse when he sat down and he was most comfortable when standing or lying.

His general health had been good. In 1893, he had a ruptured urethra resulting from a fall and had a posterior incision to drain the bladder. For the past two or three years, he has had spells every five or six weeks, lasting about a day, when he was obliged to urinate every hour. There was no pain or burning sensation. Had tonsillitis as a child, but no difficulty in swallowing until the present time. There have been no digestive disturbances, except about sixteen years ago, when he had an "inflammation of the stomach" which

\* Read before the Santa Clara County Medical Society.



required about four to five months' treatment. He had worked as a miner in Australia and South America for many years and had frequently given demonstrations of swallowing broken glass. His last demonstration had caused some pain in his throat and forced him to give up the practice. He gives a history of lues, has always been a heavy drinker and smoker. Average weight until onset of his trouble has been 175 pounds. He now weighs 128 pounds.

Examination shows a markedly emaciated old man. Pupils react well; eye grounds normal. **Neck:** marked venous and carotid pulsation on right side, less marked on the left. **Voice:** very hoarse; on lower lip a small nevus. **Glands:** in the left axilla there is a mass the size of a hen's egg, hard and not tender; not adherent to the skin. Right axillary enlarged, supraclavicular nodules right and left, many palpable inguinals. **Urine:** negative. **Blood:** reds 4,500,000; whites 8300; hemoglobin 80 per cent.; polys. 67 per cent.; lymphocytes 30 per cent.; large lym. 1 per cent.; eosinophiles 2 per cent.; transitionals 3 per cent. **Feces:** occult blood, marked reaction. **Wassermann:** negative. X-ray showed an irregular narrowing of the esophagus at the bifurcation of the trachea with considerable mediastinal thickening.

It was felt that the clinical history with the above laboratory findings justified the diagnosis of a carcinoma of the esophagus at the bifurcation of the trachea with metastases to the axillary and supraclavicular glands. However, the tumor mass in the axilla on removal and sectioning proved to be a melano-sarcoma, as shown by the following extracts from the pathologic report: "Tumor mass the size of a hen's egg, black in color, soft and fluctuating. Section shows a semi-solid central portion of black material resembling tar, with a more solid, yet friable periphery. The outermost layer is fibrous and shows blood vessels running in various directions. The tissue consists, for the most part, of pigment cells varying in size, arrangement and pigmentation. The cells are large, spindle-shaped, others round and polymorphous. Many contain numerous dark brown pigment granules. So numerous are these in some of the cells that the nuclei are hidden, while others contain no pigment granules. There are all gradations between these extremes. Several multi-nucleated cells are seen. The stroma consists of a small amount of connective tissue supporting blood-vessels. The blood-vessels are being invaded by tumor cells. Several small areas of lymphoid tissue are seen scattered throughout the section. There is a fairly dense fibrous tissue capsule which is invaded by pigment cells."

As cases of primary melano-sarcoma originating in the lining epithelium of the esophagus had been reported, the diagnosis was changed to that of primary melano-sarcoma of the esophagus with axillary metastases.

Autopsy however proved it to be different. In the apices of both lungs were found extensive adhesions and evidences of old consolidations. The liver was enlarged but no nodulations or tumor formations were present. There were chains of enlarged glands in both supra-clavicular triangles, more marked on the right side. These glands varied in size up to 1 cm. in length and were mostly of a deep black color. Both axillae contained numerous chains of glands accompanying the vessels, those of the left axilla being much larger. On the left side of the trachea, about the level of the arch and slightly compressing it, was a large tumor mass, 3 cm. in length, and 2 cm. in diameter. This mass was without pigmentation. Esophagus, typical squamous celled carcinoma, occupies the middle and lower thirds of the esophagus about 10 cm. in length, extending through all the coats of the esophagus and almost obliterating the lumen, with metastases in the para-

vertebral glands. The remaining parts of the body were remarkably free from metastases, a few melano-sarcomata being found in the left kidney and suprarenal. The nevus was examined but did not show any carcinomatous proliferation.

Cases 2 and 3 are both from the University of California Service.

Case 2. Was a woman, aged 44, who for a number of years had intestinal trouble of a character which was diagnosed as tubercular, as she had an old tubercle of the lung. There was persistent occult blood in the stools, pain, marked constipation, neither loss nor gain in weight. At operation, the ileum was resected for a tumor, which had caused considerable stricture and the appendix was removed for another tumor. There were multiple adhesions which were separated. The patient remains well today. On microscopical section the tumor of the ileum proved to be a carcinoma and the appendix an adeno-carcinoma.

Case 3. The third case was a girl, 22 years of age, who entered the hospital complaining of pain in the left leg and lumbar region. Abdomen: no tumor felt. Visible peristalsis in the epigastrium. Vaginal examination revealed a tumor of the left ovary. Spine stiff, almost immovable, muscle spasm marked, greater on the right.

At autopsy: A carcinoma of the stomach and gastric lymph nodes with metastases to the vertebrae and a mixed tumor of the ovary.

These cases are by no means as rare as has been supposed. Harbitz<sup>2</sup> in the Journal A. M. A., for March 25, 1916, has given his findings in 3613 autopsies extending over a period of 15 years. He found cancer in 14.5 per cent. of all cadavers. In 103 cases multiple tumors were found, i. e. in 2.8 per cent. This includes, however fifty-one cases of associated malignant and benign tumors, and sixteen cases of multiple cancers of different types. This latter group forms 0.44 per cent. of the cancer cases. In two cases both sarcoma and carcinoma were found separately and in two cases combined. In one case there were three separate carcinomas, and in two others carcinoma was associated with glioma or endothelioma.

In animals, on the contrary, multiple growths are quite frequently encountered, both as spontaneous and inoculable tumors, which, experimentally, have been found to throw considerable light on the problems of cancer. Many writers are of the opinion that such cases of multiple growths are purely accidental and are of no value in the study of the general problems of carcinoma. Others, as Adami,<sup>3</sup> consider them to be of great value in the elucidation of the nature and etiology of malignant growths. Adami considers them to indicate not merely a lowering of tissue resistance, but of general body resistance; so that, simultaneously, cells in various parts find conditions possible for active and independent proliferation. It is, however, not of so much importance what is the type of growth, as what is the system or tissue from which the growth originates. Behind the "immediate" stimulus to proliferation, or the exciting factor, whether it be parasite or infection, a misplaced embryonal rest, or senile involution, there is a disturbance in the biological character of the cell which determines whether it is to be cancerous or not. This modification in the properties of the cell or tissue is to be regarded as the primary factor. Hauser refers to this theory as "carcinomatous disposition," and Ribert mentions

the idea of a general biological change as the cause of new growths. Among the benign growths, we meet with many examples of multiple tumors. Here it is one form of tissue only that is affected and this would again seem to indicate that the tissue is especially susceptible to the formation of aberrant growths.

There is such a thing as a general neoplastic tissue disposition, and tumors are the result. While it is rare for both the *stroma* and the *epithelial* structure to become malignant at the same time, yet cases are fairly common where both structures have undergone a simultaneous malignant degeneration. In 1901, Wells<sup>4</sup> reported three cases of so-called sarco-carcinomas developing in the thyroid gland. This tumor was a *carcinoma* whose *epithelial* elements were meshed in a sarcomatous stroma, and the metastases were both clearly sarcomata or carcinomata. Herxheimer, in 1908, collected twenty cases and included one from the esophagus.

Woglon reports an interesting case of a carcino-sarcoma in a mouse, in which there were two spontaneous tumors, one in the left axilla and one in the right groin. The tumor in the groin was found to be a carcino-sarcoma, while that in the axilla proved to be a pure sarcoma. Woglon believes that this sarcoma was primarily a carcinoma, and that the sarcoma had overgrown the carcinoma. It is well known that in transplantable carcinoma, possessing the power to initiate sarcoma development in their stroma, the sarcomatous portion gradually gains the ascendancy over the carcinomatous, and there is no reason to suppose that this rule would not be valid in the case of spontaneous new growths.

Ehrlich has explained the onset of sarcomatous transformation in the carcinoma, by assuming that the animal in which it takes place, has some special predisposition toward connective tissue proliferation, as some human beings, for example, are apt to develop keloids at the site of a scar. Ehrlich and Apolant inoculated a typical adeno-carcinoma through ten generations and finally obtained a mixed tumor, the stroma of which was a spindle-celled sarcoma. In the thirteenth generation, the carcinoma had disappeared and was replaced by a sarcoma which persisted as a sarcoma as late as the twenty-sixth generation. Harbitz cites three new cases in the human of a sarcoma developing secondarily on an abdominal metastatic carcinoma from an ovarian cancer. In some cases where the primary tumors are close together, though entirely separated, several authors, as Adam and Wooley, have assumed a local predisposition or susceptibility.

Many of the reported cases of multiple tumors are bilateral, occurring in the ovaries and the testicles, the kidneys and adrenals. Zangmeister found that out of thirty-nine sarcomas of the ovaries, ten were primarily bilateral. Pices, in a series of twenty-three cases of sarcoma of the ovaries, found nine bilateral primary sarcomas. Kober, in a study of 114 cases of malignant testicular tumors, found five bilateral instances. Rolleston and Marks found two primary bilateral cases of malignant diseases of the adrenal in a study of twenty-six cases. Huster found thirteen primary bilateral cases of malignant tumors of the kidney

in a series of 607. These cases would tend to show that there is a probable predisposition of the tissue involved, and that the tumor formation occurs with an adequate stimulus. This predisposition is most likely a development disturbance.

Whether such tumors as the melano-sarcoma and esophageal carcinoma are related or arise from a single focus, it would be impossible to state. However, the experimental work on animal neoplasms has shown several analogies, and such an origin is not entirely improbable. Different types of tumors frequently occur in a single animal. Of the forty-nine animals used in the experiments of Tyzzer, eleven presented tumors of two types, and one, primary tumors of four types. In the latter there was hypernephroma, a lymphosarcoma, a papillary cystadenoma of the lung and an adeno-carcinoma of the lung. About 25 per cent. of these cases, therefore, presented multiple tumors of different types. Multiple primary tumors were probably present in a far greater proportion, for in many cases the lung tumors were multiple and occurred, not only in single, but in several lobes. Many of the tumors which develop spontaneously in mice and rats can be inoculated in animals of a similar species. That this is a real transplantation of tumor cells, and not an irritative lesion of the tissue of the host, can be shown by careful microscopical examination of the tissue. The stroma of the inoculated tissue undergoes necrosis and a new stroma is furnished from the connective tissue of the host.

Hanaio, in 1899, was the first to show that these tumors could be inoculated. In the succeeding decade numerous investigators produced various inoculations and were able to carry them through many generations. These tumors may show considerable changes in cellular type during successive generations. Loeb and Ehrlich demonstrated that a carcinoma could be changed into a sarcoma, and Flexner and Jobling have also given proof that a sarcoma can be transformed into a carcinoma. Apolant, in his experiments in partially immunized animals, has shown that carcinoma may become adenomatous in structure. Such changes as these are of importance in the virulence of the tumor. Miss Slye<sup>7</sup> states that it is her experience that when a cancer is put into a strain where it has not occurred before, it tends to appear in the form of a sarcoma. It appears that the more embryonal tissue yields first to the formless proliferation of cancer. As cancer becomes more deeply seated in a strain, the more highly differentiated tissues yield and carcinoma becomes the dominant form of neoplastic growth. All the strains long cancerous show tremendous predominance of carcinoma over sarcoma. This seems to be correlated with the fact that as the cancer ancestry behind a strain deepens, more and more of the tissues show the tendency to neoplastic growth; so that multiple tumors are more common than single growths in a family in which cancer is old.

The development of sarcoma in animals inoculated with epithelial tumors is regarded by most investigators as the result of the irritating influence of the tumor epithelium.



*Infection versus Tumors.*

Adami has called attention to a certain parallelism which exists between the behavior of infections and that of tumors. In infections there is usually a single focus, and when multiple foci exist these most commonly occur simultaneously. From this he concludes that the products of the original focus have aroused the protective agency of the body to produce antibodies and thus limit the spread of the infection. It may be also in cancer that the products of the new growth produce a reaction in the tissue of the host, which, though not sufficient to inhibit the original growth, are yet sufficient to prevent a further extension in the body. Gaylord has shown that in a certain number of mice, where the inoculation of tumors has been successful, these tumors will subsequently disappear. If now it be attempted to reinoculate them with the same or similar forms of growth, the result is negative. Sticker also observed that he could inoculate a tumor successfully in one area of the mouse, but could not reinoculate it in another portion of the anatomy at the same time; also, that if the inoculations were made in two different places at the same time, both would take, but if it were attempted to inoculate them at different periods of time the result would be negative.

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## BORDERLINE TYPES OF SEBORRHOEIC DERMATITIS AND PSORIASIS.\*

By MOSES SCHOLTZ, M. D., Instructor of Dermatology, College of Physician's and Surgeon's, University of Southern Cal., Dermatologist of Graves Dispensary, Los Angeles, Med. Dept. of University of California and of Kaspere Cohn Hospital.

The study of borderline types is of very great importance to Dermatology for the specific reason that dermatological classification is still resting on shifting, unstable and manifold bases. None of the fundamental factors taken as a basis of various systems of dermatological classifications can consistently and definitely divide the recorded nosological material into distinct and sharply defined groups without overlapping, conflicting and leaving a surplus of nondescript and undefined clinical forms.

Pathology, etiology, morphology, anatomic structure and clinical symptomology—all of these factors have been found insufficient to be taken individually as a sole guiding principle of classification. The most shifting and variable among these factors is morphology, on which essentially the entire clinical symptomology and differentiation of the bulk of individual dermatoses is built, even though, as groups, they are divided on pathological differences. For this reason the study of borderline dermatoses assumes more than a casuistical interest; it is

more than a mere refinement of differential diagnosis. The study of borderline dermatoses can and should be utilized for a broader and more important purpose of bringing out new viewpoints and facts of their clinical and pathological relationship, thus preparing new bases for a rational and comprehensive classification.

Among various borderline dermatological types those between psoriasis and seborrhoeic dermatitis are of considerable practical and theoretical interest.

It has been the writer's privilege to see for the last two years several of these cases. The borderline features of the cases were so marked as to make a differential diagnosis well nigh impossible and to prompt their record.

**CASE REPORTS.**

Case 1. Mrs. B., æ. 36, came with a generalized eruption of several years' duration. The scalp was covered with a fairly dry but heavy diffuse crusting extending way below the hairline. Large typical patches of seborrhoeic dermatitis between the breasts. On the back and limbs a number of patches from a dime to a dollar sized, of frankly psoriatic type; there are also patches with heavy yellow scales suggestive of seborrhoeic dermatitis. Knees and elbows are free from eruption. The patient gives a history of a chronic course with many relapses.

Case 2. A young girl æ. 16, came with dry, scaly typical psoriatic patches on both elbows; there were also dry, crusting large areas on the scalp. The case was diagnosed as psoriasis. Great was our surprise when a week later the patient came with as a typical acute outbreak of seborrhoeic dermatitis, as one may meet. A number of round and circinate patches on the face and neck were clearly the outgrowth of the main seborrhoeic area on the scalp spreading downward over the hairline in all directions. Psoriatic patches on the elbows looked as before. Several patches on the back presented the combined features of both conditions.

Case 3. Mrs. M., æ. 25, shortly after confinement came with an acute breaking out of the whole scalp, face and neck. The examination reveals a classical picture of a hyperacute seborrhoeic dermatitis. The trunk of the body and the limbs show several scattered patches presenting a mixed picture of psoriasis and seborrhoeic dermatitis. The knees and the elbows on the extensor surface show dry patches which are nearer to the pure type of psoriasis than any other patches. The patient states that these patches are of many years' duration with many recurrences. The patient's two brothers are affected with psoriasis.

Case 4. Mr. S., æ. 45, paralyzed and bedridden for the last 13 years. The advice was sought for, what was deemed, bed sores which developed gradually during the last few months. The examination has revealed several large, from a dollar to a hand palm sized, psoriatic patches on both buttocks and extending further down in the genito-crural region, where it was associated with an erythema intertrigo due to the soiling by urine and feces. Some dry scaling on a reddened base was also present on the scalp and bearded region of the face. Elbows and knees showed small psoriatic patches. The patches on the buttocks showed a decidedly yellow tinge and rather heavy plate-like

\*Read before the Forty-eighth Annual Meeting of the Medical Society, State of California, Santa Barbara, April, 1919.

scaling. Shortly after I was called in again on the patient's complaint of itching of the scalp and the ears. Great was my surprise to see a diffuse and rather heavy seborrhoea of the scalp and typical patches of seborrhoeic dermatitis of a subacute type, located symmetrically, both on the inner and the outer surface of each ear. The patches inside of the ears resembled somewhat lupus erythematosus. The patches on the outer surface of the ears, extending over the fold between the concha and the temporal region, had both seborrhoeic and eczematous aspect and could hardly be differentiated between these two conditions.

#### INTERPRETATION OF THE CASES.

Each one of these cases could be taken at one time for psoriasis, at another for seborrhoeic dermatitis, according to the predominating type of eruption at certain periods, but at all times there could be found patches presenting the combined features of both conditions.

The interpretation of these cases can be attempted along three different lines.

1st. It may be a case of a single pathological and clinical entity, either psoriasis or seborrhoeic dermatitis, with morphological variations so marked as to simulate the clinical appearance of each other.

2d. It may be a case of pathological transmutation, where true psoriasis develops from the lesions of seborrhoeic dermatitis, and vice versa.

3d. It may be a case of the coexistence of both conditions with mutual encroachment and overlapping of lesions.

These three possibilities represent the dualistic viewpoint holding that psoriasis and seborrhoeic dermatitis, pathologically and clinically, are two distinct entities. It is fair to state, however, that there is a view represented by Norman Walker of England, that psoriasis and seborrhoeic dermatitis are but two clinical varieties of the same condition, pathologically indistinguishable.

#### REVIEW OF THE LITERATURE.

A detailed analysis of these hypothetical interpretations can be properly preceded by a brief review of the literature on the subject. It is surprising how little attention is given in the recent literature to this group of cases. This fact might lead one into a belief that this matter is a definitely settled and closed chapter in dermatology. The perusal of the older literature, however, reveals a considerable confusion and diversity of views, both as to psoriasis and seborrhoeic dermatitis, and as to their clinical relationships. This can be well illustrated by the following quotations in the discussion of the pathogenesis of psoriasis:

Sutton<sup>1</sup> in his treatise on skin diseases states: "At this time the majority of investigators believe that psoriasis is caused by a parasite."

Says Pusey<sup>2</sup> in his textbook: "The majority of authorities regard parasitic nature of psoriasis improbable."

The majority of dermatologists regard psoriasis and seborrhoeic dermatitis as distinct clinical entities. Many of them have recognized the borderline types, but they have given to them only scant attention and have made hardly any attempts at the interpretation of these forms.

Stellwagon<sup>3</sup> briefly remarks that exceptionally the scales in psoriasis are greasy and filmy on touch and present some features of both diseases.

Crocker<sup>4</sup> also observes that seborrhoea psoriasiform—i. e., psoriasiform seborrhoea—is one of the least common forms. He suggests that the presence of seborrhoea offers a suitable soil for the growth of other bacteria.

Sequeira advances another hypothesis that psoriasis may be altered by seborrhoeic condition.

The broadest view of all is advanced by Sabouraud, the discoverer of Bac. Seborrhoicus. He includes under the terms of seborrhoids also the scurfy streptococci lesion, pityriasis rosea, psoriasis, parapsoriasis, etc. At the same time he draws clearly a histopathological difference between psoriasis and seborrh. dermatitis, calling our attention to the phenomena of *exocytosis*, i. e., minute cellular infiltration in psoriasis, in contradistinction to *exocerosis*, i. e., exudation of serum to be found in eczema and seborrhea.

Unna, who the first has described and defined seborrh. dermatitis, as a clinical unit, takes also a rather unique and broad view, emphasizing the pathogenetic importance of coil glands in seborrhoea, and grouping seborrhoeic dermatitis entirely with eczemas. However, Unna does not regard psoriasis and seborrh. dermatitis as different clinical types of the same pathological condition. Far from it, Unna emphatically states that differentiation between these two conditions is of great importance. He emphasizes the fact that in seborrhoea the fatty matter is not situated in the scales alone, but it penetrates the whole thickness of the skin, as in no other disease.

Robinson also emphasizes a histopathological difference between these two conditions, stating that psoriasis is essentially a hyperplasia of the malpighian layer, and that sebaceous and sweat glands are not at any time involved in psoriasis. These results have been also confirmed by Jamison and Tilbury Fox. Norman Walker of England represents a small minority, who believe in the closest pathogenetic relationship if not a perfect identity of psoriasis and seborrh. dermatitis. In fact, he regards them practically the same and deems it unnecessary to draw any distinctions.

So extreme a view seems perfectly unwarranted neither by the histopathological changes agreed upon by the majority of investigators and particularly well emphasized by Unna and Sabouraud, nor by the clinical observations. The clinical behavior of psoriasis and seborrh. dermatitis seem so totally different as to refute their pathogenetic identity even in a more emphatic manner than the histopathological differences. The writer sides decidedly with those clinicians who consider psoriasis and seborrh. dermatitis as distinct and independent clinical entities. The constant and uniform start of seborrh. dermatitis from the scalp and its downward spread by continuity or self-inoculation, the circinate border, its tendency to invade axillar and inguinal regions—favorite locations for parasitic dermatoses—the rapid response of seborrhoeic lesions to antiparasitic local applications, such as sulphur, mercurials, salicylic acid, etc., definite self-limiting clinical course of seborrhoea reaching the



stage of involution with the destruction of the hair follicle and the onset of alopecia, the relative absence of hereditary and family traits, and the possibility to trace up the contagium through combs, hat bands, etc.—all these facts point unmistakably to the parasitic nature of seborrhea.

On the other hand, the onset and the character of development of psoriasis, its simultaneous start of multiple patches in widely scattered parts of the body, the discrete character of the patches without the slightest tendency to run together or to creep in one direction by the extension of the advancing edge, as all parasitic forms do, a strong tendency to hereditary and family traits, a perfectly indefinite and capricious course, a possibility of rapid and spontaneous involution (a phenomenon never observed in seborrhoea), a possibility of clearing up from a constitutional, arsenical or dieting treatment alone, or after the removal of a source of local infection, and, finally, the lack of positive or even plausible bacteriological evidence—all this with equal force points to the metabolic, constitutional or toxic nature of psoriasis.

#### THE INTERPRETATION OF BORDERLINE TYPES.

The writer's interpretation of the reported and similar cases is based on his belief that psoriasis is a constitutional, non-parasitic, and that seborrh. dermatitis is a local and parasitic dermatosis.

From this viewpoint the above offered hypotheses for the interpretation of the reported cases can be readily and definitely answered.

The first possibility of the cases being one or the other clinical entity with unusually marked morphological variations is refuted by the fact that each one of the reported cases presented at all times a clinical picture of double condition, each of dermatoses retaining its characteristic location, its mode of distribution and clinical course, only at times showing the predominance of one over another.

The second possibility of pathological transmutation, i. e., the developing of true psoriasis from the patches of seborrh. dermatitis, as suggested by some (quoted by Cunningham<sup>7</sup>), besides its speculative character, does not agree with the observation that it is the psoriatic patches in typical psoriatic location which show the mixture of seborrhoeic features, and not the seborrhoeic lesions that take on psoriatic aspect.

The writer is inclined to accept the third hypothesis, that of the coexistence of both conditions with a mutual overlapping and encroachment of lesions. This overlapping and encroachment, however, is mutual only apparently, and particularly so on the scalp. On the rest of the body the clinical evidence readily points to the fact that *it is the seborrhoea engrafts on the psoriatic patches, and not the psoriasis on seborrhea*. This conception seems perfectly plausible, as the seborrhoeic contagium is very mobile and may rapidly spread under favorable conditions over a large surface of the body. This contention seems to be also substantiated by a therapeutic observation that seborrhoeic lesions, as a rule, clear up first, leaving the underlying psoriatic patches in their original condition, in which they stay until the next flare-up and superimposition of seborrhoeic contagium. The incidence of, active or

latent seborrhoea, in psoriasis is not recorded, but it is likely to be rather common, as the inflamed and infiltrated patches of psoriasis present a favorable soil for seborrhoeic contagium.

#### Summary.

This interpretation of borderline types of psoriasis and seborrhoeic dermatitis is offered not only as a key to the therapeutics of these cases, but also as an attempt to clarify the confusion and indefiniteness in regard to this important group of cases.

In conclusion the writer wishes to emphasize the following points:

1st. The study of borderline dermatoses is of great importance from nosological and therapeutic viewpoints.

2d. Psoriasis and seborrhoeic dermatitis are distinct clinical and pathological entities.

3d. Psoriasis is a constitutional, metabolic, non-parasitic dermatosis. Seborrhoeic dermatitis is a local parasitic dermatosis of follicular origin.

4th. Borderline types of psoriasis and seborrhoeic dermatitis are due to the engrafting of seborrhoeic contagium on psoriatic patches.

Brockman Building.

#### References:

1. Sutton: Diseases of Skin. 1916.
2. Pusey: Principles of Dermatology. 1911.
3. Stellwagon: Diseases of Skin. 1910.
4. Crocker: Diseases of Skin. 1903.
5. Sabouraud: Topographical Dermatology. 1912.
6. Hyde: Diseases of Skin. 1909.
7. Cunningham: Medical Record. 1917.

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### SEPTIC LEPTO-MENINGITIS OF OTITIC ORIGIN. REPORT OF A CASE WITH RECOVERY.\*

By EDWARD CECIL SEWALL, M. D., San Francisco;  
JOHN ADOLPH BACHER, M. D., San Francisco;  
HENRY GEORGE MEHRTENS, M. D., San Francisco.

It is not only very commonly the popular belief that meningitis is always fatal, but even among the medical profession the impression prevails to an unfortunately great extent that meningitis, except in the epidemic form, is unvariably lethal. To such the term meningitis implies a condition largely as is seen in the ultimate stage of the disease on the autopsy table. At such time the whole cerebro-spinal system is bathed in creamy pus, or the more fibrous exudate smears the surface, involving the various nerves and altogether presenting a hopeless picture. This certainly is a fatal condition and surgery has yet to bring its basic principle of drainage to bear for its relief. The above mentioned individual, under criticism in order to emphasize the modern viewpoint, however has a class of distempers that includes the rather vague conditions known as meningismus and serous meningitis. These conditions he holds to be curable and distinguishes them from a true meningitis largely because of that fact. Now it is well established that these different conditions represent the various stages of the same disease. I am speaking particularly of the meningitis that depends for its source of infection upon some septic focus in the ear, accessory sinus, skull fracture of other neighboring part. Still I think the principle is applicable to all forms whether from typhoid, pneumonia or what not.

\* From the Ear, Nose and Throat Department of Stanford University, San Francisco.

The term septic lept meningitis is a good one and if taken literally keeps us from error in our classification. It means of course an inflammation of the meninges, inflammation which disturbs the normal in such a manner as to give various clinical pictures depending upon the degree of such disturbances. The cerebro-spinal fluid may be roughly described as a limpid clear secretion given off from the choroid plexuses of the three main ventricles of the brain. It passes through the central cavities along the aqueduct of Sylvius into the fourth ventricle and out by the foramina of Magendie, etc. From here it makes its way through the various subarachnoid spaces extending to the tip of the spinal canal and making its way ultimately into the venous circulation through the pacchionian bodies and lateral lacunæ of the venous sinuses. One would for this reason expect the fluid taken from the spinal canal in the lumbar region to present a fair index as to the condition of the whole. This is only generally true however and one can readily see how disturbances that interfere with this free circulation, as easily can happen at the narrow points, would make the data from the spinal fluid examination subject for discriminating study.

One of the first objective results of a meningitis is an increase in amount of cerebro-spinal fluid and intra-cranial pressure. This may take place simply from proximity of a septic focus of sufficient virulence. For instance a middle ear abscess may cause meningeal disturbances just as a focus in the skin, a furuncle for instance, can affect the surrounding tissues. In this initial stage, marked only by an increase in the amount of the fluid, we presume that there is no actual bacterial invasion. We find no bacteria on examination. We may call this a meningismus, and while the symptoms may be very marked, headache, constipation, stiff neck, etc., the patient promptly recovers when the septic focus is removed. We have however dealt with a meningitis, but at a readily curable stage.

Some curious distant disturbances can occur showing possible meningeal disturbances in the neighborhood of a middle ear abscess. I have under treatment now a patient presenting the clinical syndrome of Gradenigo as shown by paralysis of the abducens, and neuralgia of the fifth nerve accompanied by a herpes labialis. All the symptoms are now clearing up after evacuation of the pus in the middle ear. The exact pathology of this condition is not known, but is probably a localized edema of the meninges at the tip of the petrous due to extension of the inflammation via the peritubal cancellous tissue or the carotid canal. It must include a disturbance of the cells themselves of the gasserian ganglion, for thus only do we get a herpes. In my case the spinal fluid was normal as to pressure and all other points.

If the infective focus is of sufficient virulence or sufficient time is given, considering other factors of course as resistance, etc., we find next certain changes in the fluid due to the increased inflammation. The fluid which under normal

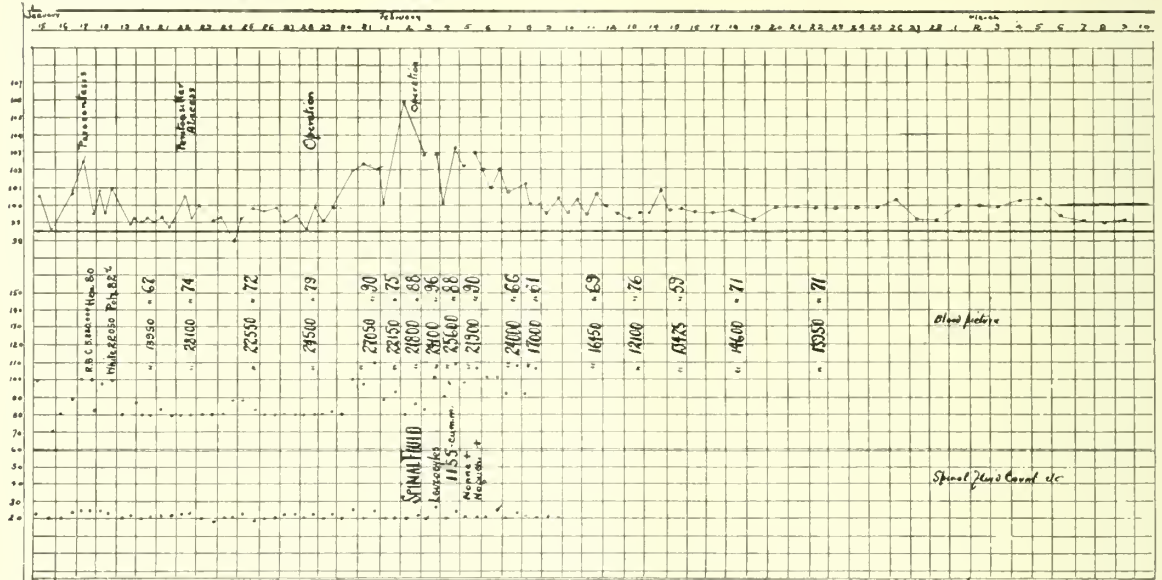
condition reduces Fehling's solution, may no longer do so. Cellular elements now begin to make their way into the fluid and where the leucocytes in normal fluid run about three or four to the cmm., we now have a cellular increase varying in number through hundreds or thousands up to pure pus. With this cellular increase go the positive globulin reactions. As the virulence of the process increases, the polymorphonuclear type of cell increases and vice versa. In this way the number of cells forms an important indication of the clinical condition, and the character of these cells is of prognostic importance. As mentioned however, it does not always do so and I have had three cases in which, in the course of a meningitis of otitic origin, the cells have decreased gradually in number while the pathology progressed. The appearance of the inciting agent in the fluid is variable. Sometimes the bacteria are absent or at least not demonstrable. Even after the cellular elements have greatly increased. On the other hand the pus forming germ may appear early. While their demonstration is important, their presence by no means determines a fatal ending nor their absence a definitely favorable outcome.

The extent to which a septic meningitis can progress and still be curable depends naturally upon many factors. At one time in our surgical history the unmistakable signs, headache, stiff neck, etc., properly gave a most dismal prognosis. Little or nothing was done and the patient died. Quinke with his lumbar puncture and Macewen with his contention for surgical drainage led the way and progress has been rapid toward better prognosis. Early diagnosis is of paramount importance. Lumbar puncture facilitates this and even an increase in the pressure of the fluid should warn us to attend at once to the invading focus. The earlier manifestations of a meningitis will often clear up at once under such treatment. Most serious manifestations for instance, in children especially, sometimes clear up on rupture of the membrana tympani. If, however, we find that the disease is progressing or if it is encountered first after serious changes have occurred as evidenced by the condition of the fluid, the remedy must be more radical. Now not only must the septic ear or focus be cleaned out in a radical way, but the dura must be exposed widely to determine its integrity. If there is evidence of involvement of the dura suggesting underlying abscess, there is no question that it should be opened. However when we find the dura intact, as we often do, the question of drainage through it is open to discussion. If because of comparatively few changes in the spinal fluid and absence of bacteria we conclude that the meningitis is in its very incipency, is mild in character and the dura is normal, it may be wiser not to incise it. If however the factors mentioned suggest a more virulent condition, we had better open the dura in an endeavor to secure drainage of cerebro-spinal fluid. The decompression itself is of value but no great amount of relief of tension can be expected from a decompression with intact dura.



Stanford University Medical School

Jan. 15 1918.



The adult dura is very inelastic. Drainage as near the site of infection as possible becomes our most rational therapeutic measure where drainage seems to be indicated. Drainage from the spinal canal by repeated lumbar punctures is of avail when the dura is not incised and at all times is a valuable adjunct to the local drainage, but drains the infection far from its source. The drainage of the subdural spaces has never been very successful. An opening through the dura, from which cerebro-spinal fluid flows immediately, soon becomes plugged by the brain tissue and the edges sealed by adhesions. Even the drainage of the cisterna magna has proven disappointing. The closure of the foramina of communication not only influences the condition of the spinal fluid, but may lead to an internal pressure from which the patient may succumb even while the drainage of the meninges is fairly satisfactory. It may be necessary to do more than drain the meninges as most patients in extremis are suffering from an internal brain pressure which is often doing more damage than any other factor. This is well shown in the chronic inflammatory conditions where internal and external hydrocephalus furnish the problem. In these cases callosal puncture and the establishment of permanent communication between the third ventricle and the sub-arachnoid space has given relief. Surgeons are not agreed as to the value of the procedure. Some work has been done in the way of washing from the spinal canal out through a needle introduced into the lateral ventricles. But this, we can imagine, gives a drainage of evanescent character. In my two cases of recovery from meningitis, drainage has been the determining factor. In one the incision in the dura was small, about one and a half cm. in length, but crossed a sulcus in the brain in such a way that excellent drainage continued for twenty-four hours. Such drainage cannot be counted upon from simple incision and the introduction of drainage tubes, etc., under the dura has not proven

satisfactory. The question of real drainage of the ventricles might be given more consideration. I have a case of a young boy of twelve who has just recovered from a meningitis in which the spinal fluid was cloudy with 2900 cells and contained staphylococcus. This case followed an abscess in the frontal lobe of the brain consequent to a frontal sinus infection. The evacuation of a deep lying abscess and the subsequent brain prolapse eventuated in the formation of a large fistula connecting with his right lateral ventricle. This fistula would close from time to time with immediate grave consequences and recovery only took place through frequent reestablishment of this excellent drainage. I am led to think therefore of greater possibilities of lateral ventricle drainage, and believe that it must be so contrived as to give more or less continuous and abundant flow. A patient dying of toxemia of course would not be a suitable case, but where the evidence of great internal pressure is present and symptoms are progressing without relief, I think even the more or less wide opening of the lateral ventricles as could well be done from the mastoid wound and the introducing of possibly a drainage tube or linen threads would be rational procedure.

Up to what stage may we consider a case of septic lepto meningitis curable? My two cases with the cells running up in one to near 3000 per cm. m. with bacteria are fairly well advanced as the count is recorded. I do not think it can be stated definitely that certain stages are invariably fatal except we consider the ultimate condition as described at autopsy.

This condition certainly does not always exist even when the symptoms are marked, although oftentimes the spread is very rapid and the lethal character pronounced early. This is especially true of the streptococcus of the more virulent forms. Staphylococcus gives a more favorable prognosis. I do not wish my paper to be considered as in any way minimizing the dangers of

meningitis. On the contrary, it is frankly written with the idea of promoting discussion that may be helpful in the face of this dreaded condition. I urge the abandonment of the terms meningismus and serous meningitis in connection with acute infectious foci except where we wish to define certain stages of the meningeal inflammation.

*Brief Summary of Case—See chart for temperature, etc.*

January 16, 1918.

Miss E. Age 18. Complaint, sore throat and pain in right ear. No trouble previously.

Diagnosis—Acute follicular tonsillitis. Middle ear abscess right.

Treatment of ear paracentesis, free discharge. Temperature and blood count decreased till January 22, 1918. Complicating peritonsillar abscess. This evacuated itself spontaneously. Blood count increased (as seen on chart) and with other symptoms decided for operation.

January 28, 1918. Simple mastoid operation, much pus and destroyed tissue complete exenteration of process. Sinus laid bare, dura not otherwise exposed.

February 2, 1918. Patient showed unmistakable signs of meningitis. Severe headache, high temperature, slow cerebration, slight stiffness of neck. No Kernig, no Babinski, no Oppenheim. Fundi normal, no nystagmus. Spinal fluid under great pressure, turbid. Cell count 1155 per cm. mm. A predominance of polymorphonuclear leucocytes. No bacteria found.

Consultation—Drs. Rixford, Cowan and McNaught.

Operation—At once.

February 2, 1918. Radical mastoid operation. Sinus explored, found normal, was obliterated. Dura over temporo-sphenoidal and cerebellar fossa widely exposed. Dura macroscopically normal. Incised over temporo-sphenoidal lobe, securing a free flow of cerebro-spinal fluid. Drainage profuse for twenty-four hours.

February 4, 1918. Very little drainage of cerebro-spinal fluid. Headache gone, patient feels better. Slight stiffness of neck.

February 9, 1919. No rise in temperature, practically no untoward symptoms. From this time recovery proceeded uneventfully.

See accompanying chart for temperature course, blood counts and cerebrospinal fluid condition throughout course of disease.

Stanford University Hospital, San Francisco, Calif.

## VACCINE TREATMENT OF TYPHOID.

By EDWARD VON ADELUNG, M. S., M. D.,  
Major, M. R. C., U. S. Army, Oakland.

This is a clinical report on twenty cases of typhoid fever, a portion of an epidemic which occurred in Contra Costa County, Cal., during November and December, 1917, the infective agent being water borne.<sup>1</sup> With the exception of one man, a clerk, all of the patients were laborers.

1. For a full epidemiologic and sanitary engineering study of this epidemic, the reader is referred to the Joint Report of Dr. J. C. Geiger and Grace Macmillan to the California State Board of Health, 1917.

Because of their disinclination to stop work, they came under medical care some days or weeks after fever had developed. This fact classifies them with those commonly recognized as offering a poor prognosis.<sup>2</sup> Their ages ranged from 19 to 59, and they were in good physical condition. None of them had had typhoid.

The diagnosis in all cases was confirmed by recovery of the specific bacillus, or by the Widal test, or both. The incubation periods varied from two to fourteen days.

The initial symptoms were typical: diarrhea, weakness, malaise, general pains, headache, anorexia and dry bronchitis. All of the patients were removed to a large private hospital, and placed in wards with ward care, only two patients having private nursing. The diet was the same for all: generous in amount, but restricted to the articles set down by Osler.<sup>3</sup> Water and orangeade were given in large quantity, at least 2 quarts a day. The routine medicinal treatment is negligible: small doses of dilute hydrochloric acid were given to all patients—a mere placebo. Other than that, medicine was ordered only for the urgent symptoms; for instance, compound acetanilid for headache, turpentine or physostigmin for tympanites, oil or Epsom salt for constipation, and quinin for those who had had malaria. In one case of hemorrhage (No. 20), hypertonic saline was given intravenously, and leukocytic extract hypodermically. Only one tub-bath was given, but sponging was routine for high temperature, and the wet sheet pack was used for the severe cases.

It may be stated, therefore, that the conditions of observation in this series of twenty cases were as uniform as practicable. The results of positive therapy presented by these cases may be fairly attributed to the special treatment of vaccine, other measures employed being acknowledged as of little value in modifying the course of the fever.

Perhaps because of repeated infection over many days,<sup>4</sup> more likely because of continuance at work after falling sick and while running fever, there were no classic temperature curves. On the contrary, the tendency of the fever to drag along for many weeks was notable. Though well aware of the indefiniteness of any classification of the severity of typhoid, still it seems worth while to attempt to convey some idea of the character of the cases treated by stating that eight were regarded as light (evidently coming under observation when the fever was nearly spent), one was considered moderately severe, because of lack of maintained high temperature or because of absence of severe symptoms, and eleven were classed as severe, owing to high temperature or to severe symptoms. Two patients were considered moribund for many days.

Few important complications were met; some patients had nosebleeds, several delirium, a few psychoses, three incontinence of feces and urine, several marked abdominal pain, and two intestinal hemorrhages, one of them having only slight hemorrhages, and the other (case 20) severe and repeated bloody stools.

2. McCrae, Thomas, in Osler, William, and McCrae, Thomas: *Modern Medicine*.

3. Osler, William: *The Principles and Practice of Medicine*.

4. The men continued to drink the infected water until hospitalized.



Such, then, were the material and conditions to which was applied the therapeutic test of treatment by intravenous injections of polyvalent sensitized typhoid vaccine as prepared by Dr. F. P. Gay of the Research Laboratory of the University of California. The same vaccine was also used subcutaneously for the purpose of immunizing against relapse, but is not included in this report. For the full description of the vaccine, and of the animal experiments, as well as for reports of typical cases previously treated by this method, the reader is referred to Dr. Gay's publications.<sup>5</sup>

#### VACCINE TREATMENT.

The vaccine was given intravenously in doses varying from 75 million suspended organisms (0.25 c.c. in volume) to 525 million suspended bacilli (1.75 c.c. in volume), most commonly at two or three day intervals, though many of the intervals were much longer. The impression was gained that the vaccine is most effective when given at the shorter intervals—two or three days. But it is apparent that the proper guide is the course of the fever curve, and not any fixed rule. Judgment, based on experience, is necessary in fixing the doses and intervals for each case.

The vaccine reaction is the same when given to a normal person as when given to a typhoid patient, and is about as follows: Within an hour after injection, usually within thirty minutes, a chill begins, often quite severe, and continues for from fifteen to forty minutes. Concurrently, there is a rise of temperature, reaching a maximum within a few hours, and then falling perhaps to normal, sometimes to subnormal. The widest reaction range observed in this series from maximum to minimum was 8.2 degrees. In one case the fluctuation was 9.2 degrees (that is, from 105.4 to 96.2), but the patient was in a cold pack simultaneously. The rise of temperature is accompanied by a leukopenia followed in a few hours by a leukocytosis. The patient presents an accelerated pulse, slight cyanosis, some respiratory distress, and suffers considerable discomfort during the chill. On the subsidence of the chill, profuse sweating occurs, and sometimes nausea and vomiting. Finally an enhanced sense of well-being supervenes. Any or all of the foregoing features may be absent, depending much on the size of the dose.

Other than the cursory discomfort described, no other ill effects of the vaccine were observed when it was used intravenously. I therefore consider the vaccine a harmless therapeutic agent when used in the doses and manner herein described.

In this series of twenty cases, ninety-one intravenous injections were given, always with Gay's vaccine. In considering the effect of any particular injection, the greatest difficulties to solve are whether the temperature curve following the injection might reasonably have been expected without vaccine, or whether it was really due to vaccine. To avoid *post hoc ergo propter hoc* reasoning is often extremely difficult. However, when

a fever curve suddenly drops to normal by crisis, within forty-eight hours after vaccine is given, one feels fairly certain that it was due to the vaccine. This occurred in this series six times. Even if the temperature does not drop to normal, if it fails to return as high after an injection, even here one can feel fairly sure that it was due to the vaccine. More difficult of assignment are the numerous instances in which there is reason to believe that the curve was already declining. But in all cases one must try to guess what would have occurred had no vaccine been used, an obviously difficult task. Indeed, certainty of judgment is only too apparently impossible in many instances, and all that I dare do is to set down my individual impressions, knowing well that others may hold contrary interpretations.

#### CASES.\*

**Case 1.** 36 years old, had never had malaria nor typhoid. He presented the following symptoms: roseola, diarrhea, headache, anorexia, general pains, chills, weakness, and delirium. He was severely ill for seven weeks, having had ten days of fever before reporting. His curve touched 105.2 and bacilli were recovered from his blood. He received five intravenous vaccinations, 300 to 400 million bacilli, without effect, unless indeed the first two, given on the nineteenth and twenty-second days respectively, raised the curve temporarily.

**Case 2.** Age 27, had been sick with fever for twenty-nine days before reporting. His spleen was not palpable and there was no rash, but he had slight hemorrhages, distinct diarrhea, headache, anorexia and chills, besides general pains and weakness. His fever ran for three weeks after entering the hospital, including a relapse during which the fever touched 105° two days. His blood culture was positive. He received three vein vaccinations, 150 to 475 million, without favorable effect.

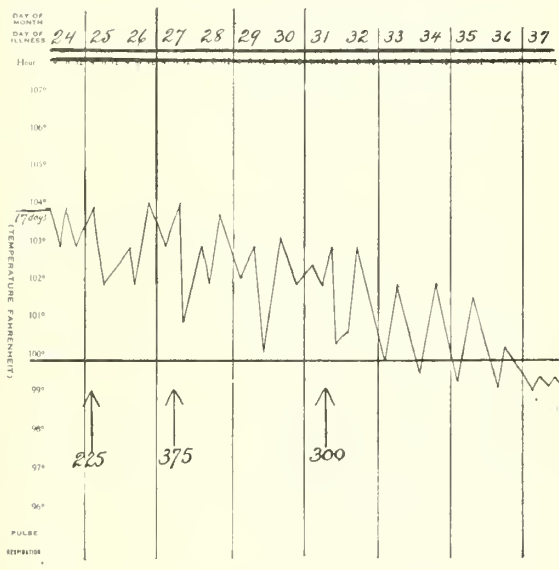
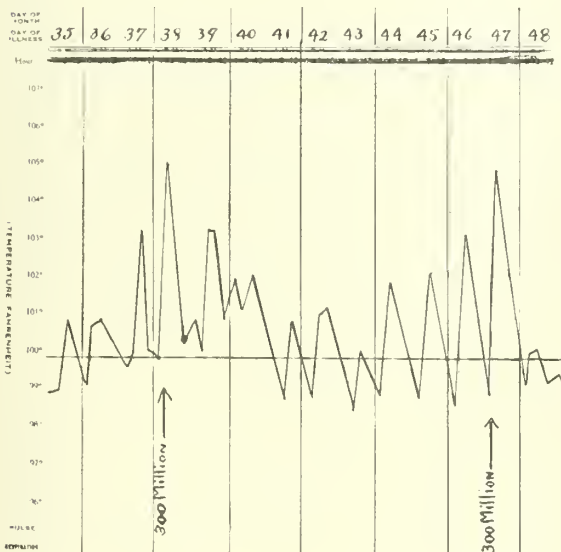
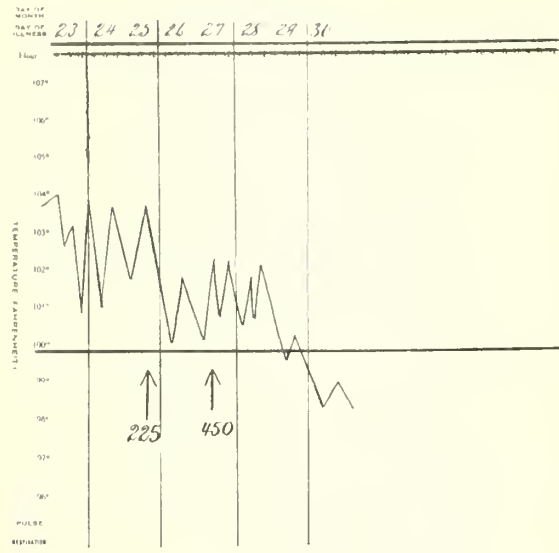
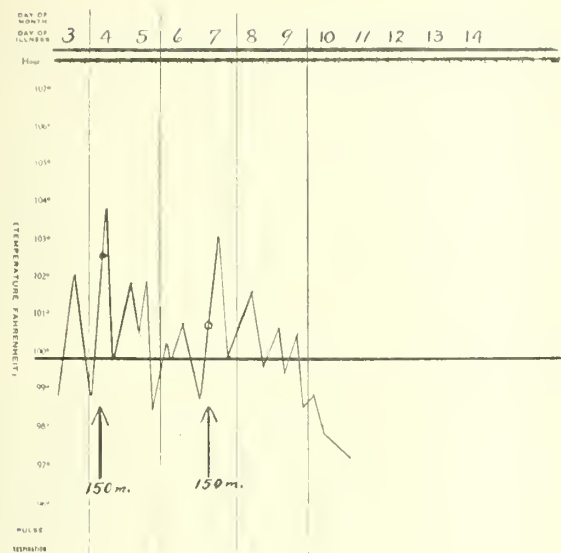
**Case 3.** Age 59, had been sick twenty-three days before reporting. His spleen was enlarged, he had roseola, diarrhea, weakness and other less significant typhoid symptoms. His fever continued four weeks in the hospital, touching 103 or 102 during the first two weeks. He received three intravenous vaccinations (150 to 475 million) without favorable effect.

**Case 4.** Age 19. His spleen was not palpable, but his roseola was pronounced, and he had slight hemorrhages. There was neither diarrhea nor chills, but he had severe headache, and anorexia and weakness. His fever lasted eleven weeks in the hospital, and he had been sick twelve days before reporting, making a febrile course of nearly thirteen weeks. He received twelve vein vaccinations, 150 to 450 million, of which six appeared to have no effect; four were followed by a short remission of the fever, and five produced distinct lowering of the fever. There was no abortive effect.

**Case 5.** Age 31, had a severe course. He had been sick only six days before reporting, and the curve lasted seven weeks in the hospital, making the total course about eight weeks. Diarrhea, headache, anorexia and weakness were marked. For six days during the fourth week of hospital care the temperature rose above 105°. He received eight vein vaccinations, 150 to 525 million. Of these, four had no effect, and four had a beneficial effect on the fever curve.

5. Gay, F. P., and Chickering, T. H. Treatment of Typhoid Fever by Intravenous Injections of Polyvalent Sensitized Vaccine. *Sediment. Arch. Int. Med.*, February, 1916, pp. 307-38 and previous papers referred to therein.

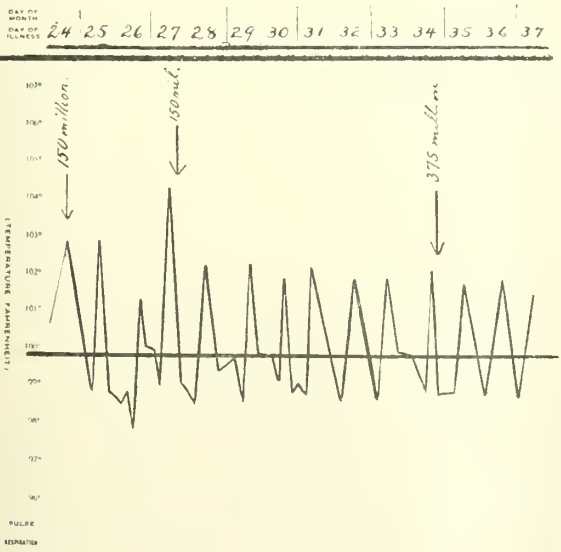
\* Temperatures in this series are rectal.



Case 6. Age 31, had had malaria but never had typhoid. He had been sick ten days before reporting, which, with four weeks of fever in the hospital, made a five and one-half weeks course. His prominent symptoms were diarrhea, headache, weakness and general pains, with a temperature mostly below 101°—a light case. He received only one intravenous dose, 150 million, which, after an initial rise, lowered the temperature.

Case 7. Age 37, had diarrhea, anorexia, general pains and headache. He had been sick eight days before reporting, which with three weeks of fever in the hospital makes about a four weeks mild course. He received only two intravenous injections, 300 million each, and each time the curve was reduced.

Case 8. Age 35, had had malaria but never typhoid. The symptoms presented were roseola, epistaxis, diarrhea, anorexia, headache, weakness, general pains, chills and delirium. The total duration of the fever was seven weeks, including three weeks before reporting, rising to 103° occasionally, with little prostration—a light case. He received three intravenous injections, 150 to 475 million. No effect was noted from two injections, while the last lowered the fever below 100°, where it remained for a week before the normal returned.





**Case 9.** Age 36, presented the rash, epistaxis, diarrhea, chills, anorexia, general pains and headache. He was sick one week before reporting—the whole course of the fever covering ten weeks. He received two intravenous doses (150 and 300 million), each of which depressed the fever perceptibly, the last reducing the fever from 103.5° to 100° in the course of three days.

**Case 10.** 29 years old, presented a palpable spleen, roseola, diarrhea, headache, anorexia, general pains and chills. He was sick five days before reporting, the total course being six and one-half weeks. His temperature reached 104° several days. He received three doses of vaccine in the vein, 150 to 300 million. Two of these lowered the temperature, and the third, given during the relapse, reduced the fever permanently to normal within twenty-four hours.

**Case 11.** Presented chills, headache, tympanites, albuminuria, epistaxis, delirium and a fever reaching 104°. He was sick in the hospital five weeks and was ill about two weeks before, making the total seven weeks. He received five vein treatments, of which two had no apparent effect, while three caused a reduction of temperature.

**Case 12.** Age 46 years, had had malaria, but not typhoid. He had diarrhea, headache, anorexia, general pains, chills and weakness. His total fever course, six weeks, includes three weeks of fever before he reported himself ill. He received two intravenous doses (225 and 450 million), both of which distinctly lowered the curve. Lysis followed the second dose.

**Case 13.** Age 30 years, presented a large spleen, headache, anorexia, weakness and general pains. He was sick three weeks before reporting, which, with his hospital residence, makes a course of five and one-half weeks. His temperature reached 104° and over. He received two intravenous injections of vaccine (225 and 450 million), both of which depressed the temperature curve, the second being followed immediately by lysis.

**Case 14.** Age 31, presented roseola, diarrhea, headaches, anorexia, chills, weakness and general pains. He reported five days after falling ill and was in the hospital three weeks—about three and one-half weeks total. His fever reached over 104° the second week. He received two intravenous injections (150 and 225 million), both of which depressed the curve distinctly, the first dose, one degree, the second two degrees.

**Case 15.** Age 34, presented roseola, diarrhea, headache, psychosis, anorexia and general pains. He was sick eight days before reporting, and was in the hospital over eleven weeks, making a total fever course of at least twelve weeks. His temperature reached a point between 105° and 106° three times, and touched 104° many times. He received seven intravenous vaccinations, varying in size from 150 to 450 million, three of which lowered the curve, and the last produced a crisis bringing the temperature to normal in twenty-four hours.

**Case 16.** Age 41, presented headache, weakness, anorexia and general pains. He had been sick two days before entering the hospital. His fever lasted three weeks, reaching 102.4° (disregarding higher vaccine reactions), a mild case. He received two intravenous injections, 150 million each. Both of them reduced the fever, the first one two degrees, the second one and one-half degrees to normal.

**Case 17.** Age 29, had had malaria, and presented enlarged spleen, roseola, diarrhea, headache and anorexia. He had been sick four weeks before reporting, and the whole fever course covered thirteen weeks, rising to 104° to 105° for two weeks, a severe case. He received thirteen intravenous

injections of vaccine, of which ten showed no result and three lowered the fever, the last one producing a permanent reduction from daily maximum temperatures of 102° to 100° daily maximums. The doses were from 150 to 522 million organisms.

**Case 18.** Age 28, presented epistaxis, diarrhea, headache, anorexia, general pains and delirium. He had been sick at least one week before reporting, making in all a six weeks' course, with maxima temperatures of 104.5° and 103°, a severe case, altogether. He received four intravenous vaccinations in doses of 150 to 450 million. One of them had no effect, one weakened the curve causing deep daily remissions, two definitely lowered the curve, the last of these causing a permanent reduction of two degrees in two days, from 103.5° to 101.5°.

**Case 19.** Age 21, presented a large spleen, diarrhea, headache, anorexia, general pains and weakness and chills. He was sick one week before reporting, making a fever course of five weeks. The curve commonly touched 103°, but it was nevertheless a slight attack. He received two vein treatments (150 and 300 million), both of which lowered the curve, the second being followed by a steady decline of fever for three days.

**Case 20.** Age 34, presented roseola, epistaxis, diarrhea, headache, anorexia, weakness, general pains, and later delirium, chills and severe bowel hemorrhages, almost to death. He had been sick one week when he reported, making the fever course eleven weeks. This was a severe case, with fever constantly between 102° and 104.5° for two weeks, muttering delirium, emaciation, tympanites, numerous copious bowel hemorrhages and the balance of the picture of the severest type. He received eight intravenous doses of vaccine, from 150 to 450 million. To one there was no response, another caused deeper dippings of the curve, five doses were followed by lowering of the curve for a day or two, while the last two depressed the curve to normal, where it remained.

#### SUMMARY.

Of ninety-one doses of vaccine given, fifty-one affected the temperature curve favorably and thirty-nine had no apparent influence. Of twenty cases of typhoid observed, seventeen were apparently benefited in degrees varying from inconsequential temporary remissions or deeper dippings of the curve, to actual abortion of the fever either by crisis or by lysis.

#### CONCLUSIONS.

1. This vaccine is harmless as used in this series.
2. Euphoria commonly follows the reaction.
3. The vaccine doubtless acts as a foreign protein and is not specific.
4. In some mild cases it aborts the fever.
5. It is of least value when the fever is strong.

#### COMPARISON OF THE END RESULTS IN INTERMEDIATE AND SECONDARY PERINEORRHAPHIES.

By OLGA McNEILE, M. D., Los Angeles.

In gynecological histories, if we exclude gonorrhoeal infections, the vast majority of women trace the beginning of their symptoms to the birth of their first child. The reason for these symptoms, which follow labor, is largely due to the fact that the majority of women are either improperly

repaired, or else are not repaired at all. With the exception of my Japanese patients, I have only seen in my entire experience, six women who have previously borne children, and did not require repair work, or in other words, six women who had apparently suffered no laceration at the time of delivery. Because of this astounding fact, I have made a very careful study of this problem during the past year, and will discuss the various phases of the subject under the following headings:

#### ETIOLOGY.

We find two general causes of perineal and cervical laceration—the natural and the artificial. The natural causes, i. e., the fact that women are torn when neither a physician or a midwife is present, we cannot explain. Since accurate obstetrical histories are not available for more than the past twenty or thirty years, the statement that only the modern women are lacerated has no foundation. In fact, the women of two or three generations ago were probably left in much worse shape than are modern women, judging only from the number of old women who have complete procidentia, cystocele with cystitis, and obstipation as a result of rectocele.

The statement that the American women are more prone to lacerations than those of other nationalities is also untrue, since every abnormality, including extensive lacerations, is found in our women's clinics where the majority of the women are of foreign birth.

The only theory which seems to have a practical basis is the one which maintains that the mixture of races and nationalities is responsible for a large proportion of our present day lacerations. The advocates of this theory maintain that by a mixture of races a fetal head is changed in both size and shape, so that it will not fit the maternal pelvis. My only personal observation bearing upon this theory is based upon my experience among Japanese patients. These women marry not only men of their own race, but nearly always men of their own caste as well. Tears of the perineum or cervix are very unusual, as by inspection alone it is difficult, if not impossible, to tell whether a Japanese woman has had a baby or not.

The artificial reasons for tears of the cervix and perineum are of greater importance than the so-called natural reasons, because they give us tangible grounds upon which to base our prophylactic work. The following are amongst the chief causes of tears during delivery:

A. Too early "bearing down." The majority of patients, whether delivered at home or in a hospital, are left almost entirely to the care of a nurse. Nurses do not know when dilatation is complete; their natural inclination is to hasten labor; therefore they instruct and encourage the patient to "bear down" long before the beginning of the second stage. The primary result of this

is extensive laceration of the cervix; secondary results are exhaustion of the patient, after the head is on the perineum, necessitating low forceps, and lacerations of the perineum due to edema of the vulva produced by hours of "bearing down."

B. Operative procedures performed before the proper obstetrical conditions are present, need but little discussion. By recalling a few elementary facts regarding the science of obstetrics, forceps will not be applied with the cervix dilated to two fingers, a version will not be performed after the membranes have been ruptured for many hours, and high forceps operations attempted when the child is dead.

C. Pituitary extract, if given without an accurate knowledge of existing conditions, or with poor judgment, is responsible for many severe lacerations. By remembering that dilatation must be complete, and that the presenting part must be well engaged and no disproportion exist, will prevent many accidents. The patient must be prepared for delivery, and constantly watched by the obstetrician, and not by a nurse, after the drug is given. Ether, if given as soon as consistent, will counteract the violent effects of pituitary extract in a marked manner.

D. Anaesthesia, the greatest single agent used to prevent lacerations, may only increase them if not properly chosen or skilfully administered. During the past five years nitrous-oxide has been advocated by many of our most prominent obstetricians. If it is impossible to use nitrous-oxide for an examination for diagnostic purposes, it is self evident that this drug will not produce relaxation sufficient to prevent lacerations. Nitrous-oxide has a definite place in the first and early second stages, but ether or chloroform should be substituted during the latter part of the second stage. Delivery without any anaesthetic I refuse to consider. From the humane standpoint alone, every obstetrician who is worthy of the name, will give some relief from pain during the second stage. Women as a whole are learning that anaesthesia has a two-fold purpose, i. e., relief of pain, and prevention of lacerations, and demand anaesthesia as well as mechanical skill.

E. Unskillful mechanical maneuvers to retard the advance of the head after it is on the perineum are the cause of lacerations which are not discussed in the text-books. I do not think that the presenting part should be forcibly pushed back by the fingers, because this tends to cause deflexion and thus increases the diameters to be delivered.

F. In general, it is the tendency to hasten labor that is the most prolific cause of lacerations. Early bearing down, pituitary extract, forceps, and no anaesthetic, are all used primarily to hasten labor, with or without obstetrical indications. The physician who cannot devote sufficient time to his obstetrical case, should transfer it to other hands.



## IMPORTANCE OF A GOOD PERINEUM.

As I said in my introduction, next to gonorrhoea, lacerations of the cervix and perineum are the most frequent causes of semi-invalidism in women. They complain of bearing down, frequent urination, leucorrhoea, back-ache and pain in the ovarian regions. The pathology is endocervicitis, endometritis, and finally inflammatory changes in the tubes and ovaries resulting from long continued chronic passive congestion. Surgically speaking, the patient in this stage will never be cured except by repair work combined with the resection of the uterus, tubes and at least one ovary. All the round ligament operations will not hold the heavy uterus in position unless the perineum is firm, and, if the repair and ligament work is not done for some years after the original lacerations have occurred, the ligaments have lost their tone and will not hold the uterus in its proper position for any period of time.

Since retroversion is very common, and is the most frequent condition encountered where lacerations have occurred, the question of sterility must be taken into consideration. Many women have only one child as the result of uterine changes due to a retroversion following the first labor. Retroversion, of itself, does not necessarily cause sterility, but the endometritis and salpingitis are frequent etiological factors.

From the sociological standpoint, a woman's value to her family and to the community is greatly decreased by chronic pelvic diseases. A chronic invalid does not make an ideal wife and mother. The lacerated woman is seldom normal sexually, and many homes are made unhappy from this cause alone. It is wise, then, to carefully determine pelvic pathology, and not make diagnoses of neuroses and nervousness, which are only common symptoms.

## RECOGNITION OF LACERATIONS.

There are two reasons why lacerations during labor are not commonly recognized. First comes the lack of skill. It is surprising to see how many physicians do not know how a normal perineum should look and feel. Many apparently have no knowledge of the anatomy of the parts, judging only by efforts to find the muscles preparatory to suturing them. The second reason that lacerations are not recognized or repaired is that the majority of general practitioners will not take the necessary time to do repairwork. They seem to think that the birth of the baby is the end of the case, while it is really only the beginning. The end of an obstetrical case is a perfectly normal woman.

An old excuse for not repairing cases was that a man would get the reputation of "tearing his women," and loose other cases. That excuse no longer holds good, since women are rapidly becoming educated to expect tears, and to demand their repair.

## IMMEDIATE, VS. INTERMEDIATE REPAIR.

In anything more than a bona fide first degree laceration of the perineum, immediate repair is not

satisfactory. The degree of laceration cannot be accurately estimated, and the tissues are so edematous that the sutures often cut through. Furthermore, I doubt very much whether anybody can satisfactorily repair a cervix immediately after delivery.

Intermediate repair is the operation I prefer in all cases where the tears involve either muscles or fascia. By intermediate repair I mean an operation performed from the second to the eighth day post-partum. By this time, the cervix has become relatively normal, with two or three fingers dilation, and both old and new lacerations are readily recognized and repaired. The edema of the perineum has disappeared, and a thorough and complete repair can be done. The great advantage to the average patient, aside from her good health, is the fact that there is no additional hospital bill to meet. Many women will gladly consent to repair work of old lacerations at this time, who would never find the time, money or the courage to return to the hospital for a secondary operation.

The big point which I want to emphasize in regard to the time of repair, is that the immediate repair, unless the tear is very slight, is not successful enough to warrant it's being done, and that the intermediate operation gives results just as good as those resulting from the ordinary secondary repair, but with less expense and loss of time to the patient.

## TECHNIQUE.

The only preparation for an intermediate repair is a low, one quart enema three hours before operation, no laxative having been given during the previous twenty-four hours. The local preparation consists in the application of 2% tincture of iodine to the perineum, vagina and cervix, which is done after the patient is anaesthetized.

A weighted, self-retaining speculum is inserted, the cervix is grasped with two "ring type" sponge holders, and brought down into the field, for inspection. Recent lacerations are brought together with interrupted sutures of No. 2 chromic catgut; old lacerations are first denuded and trimmed, and brought together in the same manner. The cervix is replaced, pushing it well upward and backward to counteract the tendency toward retractions of the uterus, and a flat dressing is pushed into the vagina to prevent the lochia from soiling the perineum.

An Allis snap is placed on each side at the junction of skin and mucosa at the level desired, usually just below the lower level of the labia minora. The tissue between these two snaps is drawn taut, and a narrow strip of tissue is cut off, including both skin and mucosa. In recent lacerations this step is not necessary, since we already have an open tear. A closed Mayo scissors is introduced into this line of cleavage about one half inch from the median line, is pushed back, down and out for about one and one-half inches, and the scissors opened so that a separation of the blades amounting to about two inches occurs. This

step is repeated on the opposite side. The mucosa directly in the median line is dissected backward for about one-half inch. In recent tears this dissection is not necessary, while cases presenting a large rectocele may require more extensive denudation and resection of considerable mucosa. Allis snaps are now introduced into the two lateral openings and grasp a thick bundle of the levator ani muscle. These muscles are then drawn into the field and sutured in the median line with No. 2 chromic catgut. Usually two or three sutures are sufficient. This forms the basis of the new pelvic floor. An Allis snap now grasps the mid point of the cut edge of vaginal mucosa, and three or four sutures of No. 1 plain catgut approximate the vaginal mucosa and underlying tissue.

Number 2 chromic catgut on a medium sized cutting needle is used for skin suturing. These needles pass through the skin, catch the fascia underneath, and are brought out through the tissues of the opposite side in the reverse order. From four to six skin sutures are required: the lower ones being tightly brought together, while those nearer the vagina have less tension placed upon them, since the tissues in this region are more apt to be cut.

The vaginal pack is removed, the iodine is sponged off with alcohol, sterile vaseline is applied to the groins, and a vulva pad applied. The knees are hobbled so as to allow them to separate about 12 inches. If the knees are hobbled tightly together, drainage of lochia is prevented, with a subsequent rise in temperature and possible infection of stitches.

The most important point in the after-care of these cases is "letting the perineum alone." The stitches are washed once a day with a non-alcoholic solution of green soap, preferably after the morning bowel movement. After urination the stitches are dried with gauze sponges. No external douching is allowed. Heroin, gr. 1/24 to 1/12 is given every four hours for twenty-four hours, beginning when the patient returns from the surgery; during this period the baby does not take the breast. After twenty-four hours one dose of heroin is given each evening for two or three nights. The pain after complete repair is severe, and opiates should be given freely to obtain the best results. A laxative is ordered 36 hours after operation, after which the patient receives the usual post-partum care.

The following averages have been computed on a series of repairs, half of which were the secondary type of operation, while the remaining half were the intermediate type. The figures seem to prove my contention that the results following the intermediate type of operation are not only as good as those following the secondary type, but better, probably because a majority of secondary repairs are associated with other operative procedures resulting from old lacerations.

## TABULATED RESULTS IN ONE HUNDRED PERINEORRHAPHIES

INTERMEDIATE		SECONDARY	
27.....	Average age .....	30	
31.....	Primiparas .....	12	
19.....	Multiparas .....	38	
3.....	Day after delivery.....		
18 min.....	Time of operation.....	24 min.	
1.....	Cervix only .....	0	
37.....	Cervix and perineum.....	33	} 38
12	Cervix, perineum & post. colporr. ....	3	
0.....	Perineum only .....	8	} laps
DELIVERY:			
42.....	Normal .....	43	
5.....	Forceps .....	7	
2.....	G Version .....	0	
2.....	Breech .....	0	
COMPLICATIONS:			
2.....	Episiotomy .....		
1.....	Pneumonia .....	0	
2.....	Nephritis .....	0	
0.....	Mastitis .....	1	
0.....	Bartholinitis .....	1	
0.....	Cystitis .....	6	
RESULTS:			
32.....	Excellent .....	23	
14.....	Good .....	19	
2.....	Fair .....	8	
UTERUS:			
38.....	Normal position .....	42	
10.....	Retroverted .....	4	
2.....	Not examined .....	4	
ANAESTHETIC:			
2.....	Gas .....	0	
30.....	Ether .....	27	
18.....	Gas-Ether .....	3	
0.....	Ether-Scopolamine .....	20	

## REPORT OF TWO CASES OF ETHMOIDAL MALIGNANCY.\*

By P. A. JORDAN, M. D., San Jose, Cal.

My reasons for presenting the history of the following two cases are two-fold, i. e., the rarity of malignancy in nasal diseases in my practice of sixteen years, and secondly, urging the early use of radium in treatment, which lends a hope of recovery.

I have seen altogether but four cases of intranasal malignancy, three of whom died rather speedily after diagnosis was established. The fourth one is undergoing rapid decline.

### Case 1.

P. E., female, age 55. History rhinitis chronic.

Feb. 19, 1917—Turbinotomies by Dr. G. T. Jordan, Chicago.

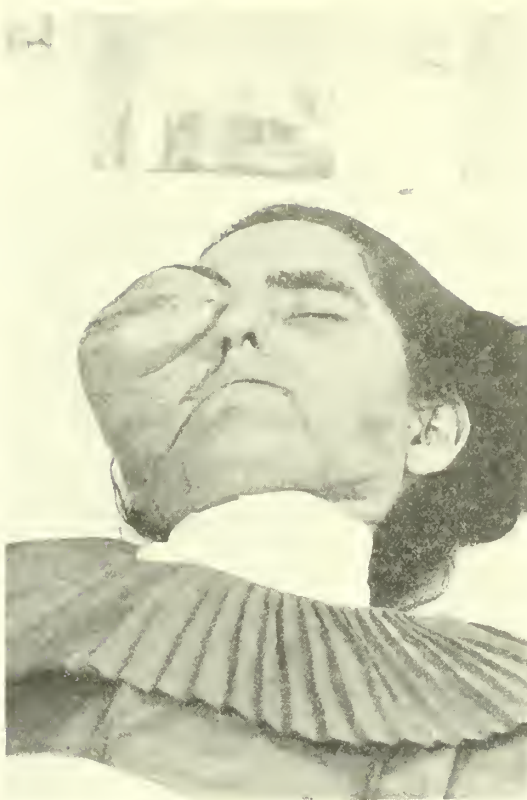
Apr., 1917—Came under my observation for acute otitis media and acute mastoiditis left. Recovery without operation other than paracentesis.

Aug. 19, 1918—Removal portion inferior turbinate and drainage much pus from enlarged bulla. Malignancy not suspected.

Sept. 19, 1918, or one month later, removed granular, tumorous, bleeding mass, including much degenerated inferior turb. right. Antral wall absent, much granular tissue removed from antral cavity and ethmoidal region. Specimen sent Dr. Wm. Ophuls, who returned diagnosis of carcinoma.

\* Read before the Forty-eighth Annual Meeting of the Medical Society of the State of California, Santa Barbara, April 1919.





Case 2. Front View—Sarcoma.



Case 2. Side View—Sarcoma.

Sept. 21, or two days later, after consultation with Dr. Sewell, placed patient under care of Dr. Boardman for X-ray treatment, who through his assistant gave grave prognosis for recovery. About three weeks later was given radium treatment in Chicago. Again in Jan., 1919, or three months later, radium was used. Disease so far has not returned. Patient in declining health at present, but not seen by me for six months.

#### Case 2.

Mrs. L. B., female, age 36. First came under my observation Dec. 17, 1917, exhibiting numerous polypi right middle turbinate region; also long prominent septal ledge right.

Operation three days later—sub-mucous resection ledge, middle turbinectomy and ethmoidectomy.

One year later patient returned, complaining of nasal hemorrhage and pain in region of right ethmoid, and exhibiting exophthalmos right eye. Inspection showed ethmoidal region to be filled with new growth. Malignancy was suspected and feared. Wassermann was immediately ordered, which was double positive. Hope was entertained that growth might be gummata. Anti-luetic treatment was not curative.

Dec. 28, 1918—Exenterated ethmoidal region. Specimen sent to Dr. Wm. Ophuls, and also to Columbia Hospital, pathological department, San Jose. Both reported sarcoma. Radiograms showed new growth, filling of ethmoidal region, lower half of orbit and right antrum.

X-ray and radium treatment were not tried, as patient presented self at late stage and family conditions made same scarcely possible.

Jan. 14, 1919—Seventeen days after extenteration of ethmoid, patient presented very marked exophthalmos right and much pain. Vision right eye 6/200. Operation: Enucleation, exenteration orbit, ethmoidal region, antrum Highmore. Bony partitions were largely absent. Rapid return of growth until at death of patient Mar. 16, or two months after enucleation the growth had attained the hideous size shown in the accompanying photos, or an external right-sided growth 16 cm. by 12 cm. by 7 1/2 cm.

#### ACHYLIA GASTRICA—A NOTE REGARDING TREATMENT.

By ELBRIDGE J. BEST, M. D., San Francisco.

The term achylia gastrica was applied by Einhorn<sup>1</sup> in 1888 to a certain number of cases that revealed, on gastric analysis, an absence of free hydrochloric acid, and gastric ferments with a total acidity of about 10. Because these cases showed no other pathology, the gastric condition was considered a separate entity due to a neurosis.

During the succeeding years, the diagnosis has been made many times on entirely insufficient evidence, such as the mere absence of HCl in one sample of stomach contents, and an incomplete physical examination.

Since the advent and widely adopted use of the fractional stomach analysis, as introduced by Reh-fuss,<sup>2</sup> and further described by the author,<sup>3</sup> studies of these so-called achylia have revealed very interesting information. It has definitely proved the presence of hydrochloric acid in certain phases of digestion while being absent in others. As emphasized by Reh-fuss<sup>4</sup> this has diminished the number of true achylia, as far as the gastric secretion is concerned, to a very small per cent.

Also, with a more careful physical examination and study of the patient we find this picture of achylia, as revealed by the stomach tube, appearing

in a variety of diseases such as: appendicitis, gall-bladder disease, gastropotosis, pelvic disease, following prolonged fevers such as typhoid and tuberculosis, arthritis, lues, gout, certain ductless gland dystrophies as myxedema, intestinal parasites, cardiorenal diseases, pernicious anemia, emotional states, tropical sprue, cancer both intra and extra gastric, and simply with advancing age.

In view of the above, the diagnosis of achylia gastrica as a separate disease is, like pernicious anemia, being made less and less frequently and with a great deal of hesitation on the part of the careful diagnostician.

A large number of cases lacking in gastric secretion undoubtedly are the end result of a progressive atrophic gastric inflammation. Daily, one sees in the clinic, cases of indefinite gastric symptoms showing, by fractional stomach analysis, varying stages of diminution in secretion. This is recognized by irregular and increasing differences between the curves of free hydrochloric acid and total acid with the HCl curve lower than the normal. Advanced cases show only occasional presence of very small amounts of free acid and later reveal no HCl at any time in the digestive cycle. Of interest along this line Pilcher<sup>5</sup> quotes figures from the Mayo clinics. In 4000 examinations there were only seven primary achylia while 271 with absent HCl and the presence of blood indicated to him the diagnosis of chronic gastritis. Held and Gross<sup>6</sup> find only a small number of achylia cases showing evidences of inflammation.

In a large number of these cases of lessening gastric function we find badly infected mouths showing marked pyorrhea and gingivitis or actively infected tonsils, very moist hypertrophied lymph tissue on the posterior pharyngeal wall or constantly swallowed secretions from chronic rhinitis or sinusitis. The constant swallowing of this infected material most likely is the cause of the gastric pathology, although several writers, Pilcher and others, consider the pathology beginning as a reflex from foci of infection first inhibiting gastric secretion with a secondary invasion of ever present bacteria completing the picture. The condition progresses to complete atrophy of all secreting cells.

There are a number of cases, frequently women, looking well nourished, who seek relief because of a persisting diarrhea with no pain. As described by Vanderhoof<sup>7</sup> the striking feature is the matutinal character of the disturbance. The patient is forced to rise as early as 4 a. m. and may have five to ten voluminous movements up to 11 a. m. After which time she may be perfectly comfortable until the following morning. A gastric analysis reveals a total loss of secretion.

Another type of case is seen with signs of asthenia, loss of weight, very nervous, constipated, showing a disturbed vegetative nervous system, symptoms referable to the epigastrium, and showing on examination no HCl and a loss of ferments. No signs of malignancy are demonstrable. In the absence of positive findings one is forced to conclude that a suppression of gastric secretion has taken place probably through the influence of the

nervous system causing a vagus inhibition. To my mind, if one is able to go far enough into the past history and make a most careful physical examination, evidences will be unearthed to show an etiology in ductless gland disturbances or some source of infection. Those rare cases reported in whom fright is apparently the cause of achylia that may not change long after the patient has again returned to a normal nervous balance, can be laid to ductless gland dysfunction as adrenal inhibition which has its effect upon the vegetative nervous system.

Regarding the pathology found in achylia, Einhorn saw no evidence of gland destruction, while Kuttner<sup>8</sup> found at autopsy that the digestive glands were destroyed. In those cases due to extra gastric influences one would expect to find the glands normal in appearance in the beginning, whereas later on atrophy would be the condition resulting from disuse.

For the treatment of this condition giving all the findings of so-called achylia, first is the removal of the cause such as a chronic appendix, an infected gall-bladder or an apical abscess. This may be all that is required, yet patients are frequently made more comfortable and recovery is hastened if attention is directed also to the patient's nutrition and the relief of an abnormal gastric condition. If total atrophy is not present and probably after several fractional tests free HCl is found one can reasonably hope for a return to a nearly normal secretion. If No HCl appears at any time the prognosis is bad regarding its ever being stimulated by any means. This point has been emphasized by Rehfuess, Held and Gross and others. It is to be remembered that any case showing HCl at any time is thereby removed from the achylia class.

Diet, as has been outlined by many writers, is a most essential factor. Soper<sup>9</sup> gives some very rational suggestions. It should answer such requirements as being non-irritating, easily digested and with a low amount of easily digestible protein, no cellulose, connective tissue or unemulsified fat.

Rehfuess<sup>10</sup> advises the use of the stomach tube over long periods before and after meals, introducing a very dilute HCl solution directly into the stomach, which stimulates a watery secretion. This secretion, however, contains no digestive ferments. Patients may refuse to carry out such a form of treatment over a long period of time.

Since the deficiency of HCl was discovered by Prout in 1828, clinicians have used hydrochloric acid therapy to replace the deficient secretion. Varying reports are found in the literature. The majority of writers have found relief of the symptoms in only a small percentage of cases. This is probably accounted for, in many cases, through a lack of appreciating the physiology of HCl in the stomach and the response to its presence by the pylorus. Owing to the concentration necessary, we are unable to administer acid in amounts comparable to what is found in the normal stomach. Cannon<sup>11</sup> has shown the normal pyloric reflex to be due to the presence of HCl. Also the presence of HCl in the duodenum



prompts the secretion of the pancreatic and intestinal ferments, as well as closing the pylorus and allowing more churning to take place in the stomach. Again Crohn<sup>12</sup> has shown by fractional studies that HCl given in one dose quickly disappears from the stomach contents, and that frequent administration will keep some HCl present.

We have, then, evidence for the rational administration of small amounts of acid over a prolonged period. This will stimulate the normal pyloric reflex and prevent the rapid evacuation of gastric contents, which is demonstrable in achylia cases by means of a stomach tube and fluoroscope, as well as stimulating the pancreatic secretion which must be depended upon to replace the stomach digestion.

To accomplish this end the patients are given 10 per cent. HCl with instructions to place 20 to 30 drops in a full glass of water which rests at their place on the table and, during the meal, take a mouthful at a time until all has been swallowed by the end of the meal. If it is convenient, a second glass can be taken over a period of a half hour following the meal. Care must be exercised by the patient to wash the mouth and teeth with an alkaline wash immediately after taking the acid to prevent an action of the acid on the teeth. To give one dose of HCl immediately after eating, as has been advised by so many writers, is physiologically insufficient and usually quite devoid of results.

As has been pointed out by Hemmeter,<sup>13</sup> Vanderhoof<sup>7</sup> and others, there is hardly a more satisfactory event in medicine than the startling results of stopping a matutinal diarrhea in achylia cases by the administration of hydrochloric acid.

University of California Medical School.

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### SOME COMPARISONS BETWEEN WAR NEUROSES AND THOSE OF CIVIL LIFE.\*

By THOMAS G. INMAN, M. D.

Assistant Clinical Professor of Medicine (Neurology),  
Stanford Medical School, San Francisco, Calif.  
Neurologist to Navy Base Hospital No. 2.

When your Secretary invited me to read a paper before your society it was thought that a review of our experience with war neuroses might be of interest. It seems that these conditions are not so very different from the functional nervous disorders encountered in civil practice and if the similarity is firmly established such lessons as have been learned during the recent conflict may aid us in our work at home. Men engaged in your line of work will recognize that the war neuroses

present some points of special interest and that the neurotic individual who is the cause of so much trouble in railroad accident work is not so very different from the patient suffering from some form of shell shock. Abundant experience, under new conditions, has served to throw additional light on our conceptions of the neuroses from which it is hoped suitable methods of treatment may be evolved.

What do we mean when we speak of war neuroses? Are these new conditions or diseases which have come into being through the influences or circumstances incidental to war, or are they old acquaintances under a new name? In answer to the first question, it may be stated that under the name of war neuroses and sometimes more specifically under the name of shell shock was grouped, for the sake of expediency, a heterogeneous assemblage of patients exhibiting symptoms referable to the nervous system which, at the time, appeared to be functional in nature. Thus there appeared at the base hospitals tagged with the name "shell shock," cases of acute mania, dementia praecox, melancholia, psychoses of exhaustion, hysterics with various somatic symptoms, neurasthenic and psychasthenic states, anxiety states and grouches. Here and there may have been an individual who had received a definite injury to the central nervous system, but these, in our experience, were rare.

To the second question we may safely answer that these were not new conditions or diseases but were reactions in the realm of the nervous system similar in their nature, though arising from different causes, to the neuroses seen at home. Just as in civil practice the name neurasthenia is frequently applied to conditions bearing no resemblance to this disease, so the names "war neuroses" and "shell shock" served to designate nervous conditions of diverse kinds not accurately diagnosed.

One must not conclude, however, that there were no pathological conditions due to direct injury, such as concussion and the like, following shell explosions. These did occur and produced the same symptoms as would have followed similar injuries in civil life.

At Navy Base Hospital No. 2 the methods used in handling the neuroses were as follows: The admission diagnosis was recorded on the history sheet, a new history taken and afterwards compared with the one on the record accompanying the patient. Complete blood and Wassermann were done and a complete physical examination made. X-ray pictures of teeth, sinuses, chest cavities, gastro-intestinal tracts and joints were had when deemed of service. A neurological examination was then made and a spinal puncture ordered if indicated. Suspicion of somatic disease belonging in other departments was checked up by consultation with men of the medical, surgical, orthopedic or genito-urinary division.

By this general survey a not inconsiderable number of cases coming with the diagnosis of "disease of the nervous system," "neurasthenia," "nervousness," etc., were found to be suffering from definite organic disease, either of the nervous system

\* Read before the Pacific Association of Railway Surgeons, San Francisco, Calif., September 6, 1919.

itself or of other parts of the body, and were then classified as "neurasthenic states" if the nervous or neurotic element were sufficiently marked. The remainder in whom no organic disease could be demonstrated or in whom the nervous symptoms were entirely out of proportion to the amount of disease discovered were distributed among the functional groups.

The great majority of these functional cases seemed to fall into three groups, namely: Conversion hysterics, anxiety states, and rationalizations. I do not wish to convey the idea that in these three classes the cases were always clean cut and fell into the designated group by virtue of a definite symptomatology. The hysteric with a monoplegia or an aphonia may present as apparent an anxiety state as one falling into the group of anxiety states, and an anxiety state may exist in an hysteric who presents no somatic symptom of his hysteria. The test used to determine the type of case in hand was suggestion. The production of anaesthetic areas by suggestion and their subsequent removal by the same means was our criterion for placing the individual in the hysteric class. Likewise, rationalization may and often does exist in hysterics and in patients suffering from an anxiety neurosis.

In the genesis of a neurosis family history seems to be of the first importance. Just as our physical resistance depends upon the kind of "rubber" we are made of, so do our psychological mechanisms depend in no slight degree upon the character of the intellectual factors bestowed upon us by our ancestors. In the great majority of our war neuroses there was a history of some form of nervous disturbance in the family. Neurasthenia, a common diagnosis in the British Isles, was the most frequent family complaint. Of course it would be incorrect to blame hereditary factors for the effects produced by the continuously pernicious influence of a neurotic parent during the formative period of early life, but to allot to each, heredity and environment, its just due is most difficult.

Among the laity and not a few medical men it has been quite commonly thought that some sort or sorts of nervous disturbance might follow accidents and that in some way the accident was accountable for the nervous symptoms which followed. Confirmed as this belief has become in certain minds there is now a tendency for men doing this kind of work to ascribe these peculiar conditions to causes other than the accident alone. Experience with psych-analysis has shown that other factors besides the accident are responsible for the mental attitude assumed by these patients.

For a satisfactory understanding of the mental processes at work recourse may be had to the complex theory. By a complex is meant a system of connected ideas with a strong emotional tone and a tendency to produce actions of a certain definite character. Complexes may be of all sorts and kinds; the component ideas may be of every variety, the accompanying emotional tones pleasant or painful, very intense or comparatively weak. (Ref.)

In an individual, the recipient of an injury for which some one else is responsible, a new complex is brought into the foreground. Everything else in the patient's mind is subsidiary for the time being, to this complex. Memories of similar accidents to friends and acquaintances are awakened and applied to his own case. To these are added the stories of callers, the suggestions of family and friends and information culled from the daily press. Hope of reward and fear of disability produce conflicting emotions, so that by the time a few weeks of enforced idleness have gone by, his mind bears little resemblance to its pre-accident condition. Pernicious suggestion at this time produces results which continue until the last vestige of resentment has sublimated under the influence of ample award and his demands on those responsible have been satisfied to the last farthing.

So long as a complex remains in easy reach of the individual's consciousness it may do no harm other than that it may direct his actions along channels derogatory to his best interests. But let the complex come into conflict with his moral or ethical standards and a conflict ensues, a condition of unpleasant emotional tension is produced and some kind of nervous phenomena follows.

One of the commonest methods whereby the mind seeks to avoid the effects of conflict occurs in the process known as rationalization. By rationalization is meant a process of self-deception whereby the individual conceals the real foundation of his thought by a series of adventitious props. He seeks to excuse certain states of mind by accepting as their cause conditions or circumstances which are not really responsible. In this way it is possible to assign causes more agreeable to the individual's tastes than the real ones were and, consequently, more in keeping with his wishes. (Ref.) Thus rationalization may approach very near to malinger. In war work the complex most often acting as a basis for rationalization was a spirit of resentment. The patients who came to us had been the objects of vicissitudes of various kinds. Buffeted on the one hand by the uncertainties of the service to which they were, often unwillingly, attached, and on the other hand subjected to regulations, discipline and injustice from which they had no redress, it is little wonder that some broke down under the strain and sought a haven of refuge beneath a physical infirmity, which, under other conditions, would have passed unnoticed. They were mostly underpaid and underfed, separated from their families for long periods of time and were themselves constantly in danger from air raids, submarines and mines.

Mental and physical reactions having their origin in disturbances affecting the natural instincts and their corresponding emotions are seen especially in the neurasthenic states. This group, in the sense used in this paper, has little support in the literature dealing with the psychoneuroses. But that there is sufficient ground for such a clinical entity and its relationship to disturbances of the primary emotions seems clear.



The neurasthenic states arise in individuals in whom affective reactions are easily stimulated and who are afflicted with organic disturbances of which they may be unaware, and if cognizant of real disease its true value is misinterpreted.

Whatever the disease is it produces a feeling of inferiority; a sense of inability to cope with the problems of existence and the normal reactions which arise from a feeling of wellbeing are interfered with. Adler interprets the neurotic manifestations as miscarried endeavors of the personality to compensate for feelings of inferiority. That that is always the mechanism at work I am unable to say with certainty, but experience shows that many of these patients improve as soon as the nature of their complaint is explained to them, even before its actual cure. This explains the apparent recovery of many patients following surgical or medical, though usually surgical procedures, neither indicated by manifest pathology nor warranted by a consistent symptomatology.

As indicated above, the patient may be unaware of the existence of any definite diseased condition. He does not feel up to the standard as measured by his former state of health. He tires easily and does not recover after rest as he formerly did. There may be sleeplessness or sleep from which he awakens unrefreshed, chiefly for the reason that he is trying to procure from sleep what sleep alone cannot give him, namely bodily rest and escape from abnormal sensory impressions arising in the diseased area. There is a subjective feeling of incompetence and subconsciously the individual accepts the position that he is fighting the battle of life with difficulty, but what the interference is, is unknown to him. Naturally, in every case the previous mental content has something to do with the particular state of mind evidenced.

In our war work the most frequent diseases or conditions responsible for the somatic disturbance in the neurasthenic states were syphilis, malaria, tuberculosis and focal infections. The ptosis-spastic colon group accounted for a small number.

The anxiety states as they occur at home are not dissimilar to the anxiety states of the man at war. Conscious fear is not always the cause of these anxiety states. They are built upon a background the discrete elements of which are unknown to the individual; nor does the anxiety tend always to become fixed upon any special object or idea. As described by Freud it is free or floating, becoming, from time to time, loosely applied or attached to various passing circumstances; to-day the state of health, to-morrow the state of the bank account. It can be shown that the nature of the fixation bears a definite relation to the mental trend of the individual; the nature of the fixation being determined by his past experiences.

These cases lend themselves readily to analysis and by persistent effort it is often possible to find some central nucleus from which the present condition arose. Explanation and stimulating suggestion bring about an apparent cure which is made permanent by education in self analysis.

The forms of hysteria which presented themselves in war work consisted in paralyses of various kinds, aphonias, deafness, blindness, amnesias, stammering, trembling, pain and contractions. Paraplegia was the commonest form of paralysis and untreated lasted for months. It seems quite satisfactory to consider these as conversion states or as defense reactions. The somatic phenomena are but the expression of a subconscious wish, the motor paralysis serving the same ends for the hysteric at home as it did for his brother in the field. As an aid to the fulfillment of a wish, it is as useful in circumventing the setting out upon a distasteful journey as it was in taking the soldier away from the scene of military activity, the dangers of which he wished to escape.

This concludes a very brief and incomplete survey of the most common types of neuroses. Doubtless you will have recognized some points of similarity between them and those occurring in your work as Railroad surgeons. There seems to be an increasing frequency in the occurrence of the neuroses in public work and with the advent of new methods of dealing with the economic side of industrial accidents greater responsibility is placed upon the medical man. In the last analysis his opinion is the only one upon which a just and equitable award can be made. On the other hand it is from him that the patient often obtains the ideas which furnish the groundwork for his illogical conclusions and which lead to exasperating indecision and long drawn out contention. In the presence of a neurotic individual the medical attendant must be always on his guard. These patients accept statements according to their own standards of valuation, change them to their own liking, never apply any logical tests and substitute for normal symptoms those which best please their disordered intellects. Fortunately for us their selection is determined neither on anatomical nor physiological grounds and they are easily detected. These cases should be quickly brought to settlement for each day added to their idleness only increases the difficulty. I believe the time is not far distant when these troublesome disorders will be early placed in the hands of special commissions competent to deal with them, thus freeing the busy medical man of the annoyance and worry which is only too often his sole reward.

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# PROGRAM OF THE Forty-Ninth Annual Session MEDICAL SOCIETY

State of California

Santa Barbara, May 11-12-13, 1920

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## State Medical Society

### RULES GOVERNING READING OF PAPERS AND DISCUSSIONS AT STATE SOCIETY MEETING

The following rules, which have been adopted from time to time by the Committee on Scientific Program and which apply to the coming meeting of the State Society, are here reprinted for the benefit of those who will read papers and those participating in the discussions.

#### Rules for Authors

1. Time allotted for each paper is fifteen minutes. The only exception to this rule will be the latitude allowed visitors from other states who come as guests of the Society.
2. No motion from the floor to extend the time of the author will be considered by the chairman of any section.
3. Each author will be allowed five minutes for closing the discussion of his paper.
4. Each author must prepare an extra copy of his paper and present the same to the officer presiding over his section before he will be eligible to read his paper.
5. Absolutely no paper may be "read by title." By consulting the program appearing in this and in the May issue, as well as the special program issued at the state meeting, each author can learn definitely when his paper is due to be read.
6. Failure on the part of an author to appear and read his paper automatically precludes the acceptance of future papers by such author for a period of two years.

#### Rules for Those Taking Part in Discussions

1. Openers are limited to five minutes.
2. Subsequent speakers are limited to three minutes.
3. The privilege of a second three minutes will not be granted to any one.

## GENERAL PROGRAM

Tuesday Morning, May 11, 1920

9:00 o'clock

1. INVOCATION:
2. ADDRESS OF WELCOME:
3. PRESIDENT'S ADDRESS:
4. REPORTS OF COMMITTEES:

## Tuesday Afternoon

2 to 5 P. M.

## MEDICAL SECTION

1. THE ETIOLOGY OF ONE HUNDRED AND FIFTY CASES OF ASTHMA.

GEORGE PINESS,  
Los Angeles, Calif.

2. MALINGERING—ITS RELATION TO THE DOCTOR.

JOSEPH CATTON,  
San Francisco.

Discussion by Henry C. Southworth.

The Doctor may consciously or unconsciously aid, abet or encourage malingering.

In cases involving compensation, the sanity of prisoners charged with murder, etc., doctors may debase their profession by contradictory testimony before boards or courts. In private practice or the clinic, a common opinion would probably have been arrived at in the same premises. Suggested remedies.



## 3. MISTAKES IN ABDOMINAL DIAGNOSIS.

CARO W. LIPPMAN, San Francisco.

- A—Differentiation of
- 1—Organic.
  - 2—Functional abdominal symptomatology.
  - 3—Importance of fluoroscopic and X-Ray examination in ruling out organic disease.
    - 1—Ulcer 90-93% correct.
    - 1-a—Cancer, impossible to diagnose in early stage. Scirrhus carcinoma—inoperable when they come to the doctor—silent first stage.
    - 2—Gallbladder trouble 50-70% correct. (Stones 30%; Visualized Gallbladder 50-60%; Oesophagospasm 80%; occurrence in other conditions.)
    - 3—Appendix of little value.
    - 4—Colon of no value in early stage, only of value in late stage.
    - 5—Difficulty of differentiation of gastric cancer and enlarged liver pressing stomach out of shape. (Hospital practice.)
- B—Laboratory—
- 1—Value of Wassermann.
  - 2—Importance of Spinal Wassermann, especially in obscure stomach cases.
  - 3—Value of Schmidt Test Diet in locating pancreatic and gastric functional disorders.
- C—Limitation of proctoscope, does not go above the first loop of the sigmoid. So-called cure of series of oesophageal carcinoma with Salvarsan—early operation instead.
- D—Importance of functional causes illustrated with cases.
- 1—Glenard's syndrome.
  - 2—Orthopedic cases.
  - 3—Heart-Aneurysm.
  - 4—Familial Jaundice.

## 4. THE INTRASPINAL TREATMENT OF CEREBROSPINAL LUES.

H. R. OLIVER, San Francisco.

Discussion by H. G. Mehrtens.

The method of treatment is based upon the artificial overcoming of the choroid block. The rationale of the treatment. Remarks upon lumbar puncture. The action of the treatment upon so-called Wasserman fast cases in general luetic infection. An analysis of cases treated. The results obtained in some thirty-four cases. Conclusions.

## SURGICAL SECTION

Chairman's Address—THE EDUCATION AND TRAINING OF THE MODERN SURGEON.

ANDREW STEWART LOBINGIER,  
Los Angeles.

## 1. BANDS IN FRACTURED BONES.

ASA W. COLLINS,

San Francisco.

Apposition and its maintenance in fractures of the long bones. Internal splints involving the destruction of tissue. Tolerance of tissue toward different metallic substances. Ideal metal for fracture bands from physical and chemical aspect. Removal and non-removal of the bands. Mode of application. Indications for the use of the bands. Demonstration of the band and instrument for its application. Fifty experiments on rabbits. X-ray plates of cases. Conclusions.

Discussion opened by Thos. H. Stoddard.

## 2. FUNCTIONAL RECONSTRUCTION OF THE SHOULDER.

JOHN C. WILSON,

Los Angeles.

Factors essential to function of the shoulder. Indications for arthroplasty or arthrodesis and their comparative values. Report of a case of arthrodesis of the shoulder joint after destruction of the upper one-third of the humerus with good functional result. Lantern slides.

Discussion opened by W. W. Richardson.

## 3. THE OPERATIVE APPROACHES OF THE SHOULDER AND THEIR INDICATIONS.

JAMES T. WATKINS,

San Francisco.

While much progress has been made toward solving the problems due to disturbances of function of the lower extremity, whether due to injury or to disease, relatively slight advances have been made toward alleviating similar disfunctions of the upper extremity. This is due in part to the circumstance that while the essential facts concerning the physiology and anatomy of the lower extremity are matters of comparatively common knowledge, familiarity with the anatomy and physiology of the upper extremity is by no means so common nor so intimate. Recognition of this fact has led the writer to make on his own account studies and dissections, some of which are presented in this paper.

Discussion opened by Arthur F. Fisher.

## 4. FRACTURE OF THE FEMUR.

HOWARD H. DIGNAN,

San Francisco.

1. Summary of war methods.
2. Personal experiences.
3. Comparison of methods of treatment.
4. Treatment of shortening.
5. Report of cases.

Discussion opened by Lionel Prince.

## 5. A PLEA FOR BETTER FRACTURE RESULTS.

GEORGE McCHESNEY,

San Francisco.

A—War surgery has taught us in fractures

- 1—Improved traction technique.

2—That union is procurable in the worst fracture.

- 3—Ease of obtaining union without metallic aid.

- 4—Ease of obtaining union without operation.

B—

- 1—Civil fracture results must be improved.

- 2—Industrial fracture results must be improved.

- 3—This can be done by applying lessons learned in war surgery.

C—War has emphasized the fact that a meticulously exact approximation of fragments is not necessary to good function.

D—Hence much of the plating and sliding bone grafts in fresh fractures unnecessary if not harmful.

E—We should not yield to this temptation to operate but educate public away from thinking that such accurate repositions are required as radiograms would indicate.

Discussion opened by James T. Watkins.

## EYE, EAR, NOSE AND THROAT SECTION

Chairman's Address.

PETER A. JORDAN,  
San Jose.

### 1. ACETONE AND DIACETIC ACID IN OPHTHALMOLOGY.

WM. H. DUDLEY,  
Los Angeles.

### 2. SIGNIFICANCE OF SPINAL DEFECTS AND PAIN, OCCURRING IN RELATION TO OCULAR DISEASE.

LLOYD MILLS, Los Angeles.

Spinal anomalies, inflammatory foci or their fibrous residues and varying degrees of localized spinal rigidity and pain, especially marked in the "cilio-spinal" region, are found with frequency in such ocular affections as glaucoma, iritis, and stubborn conjunctiva engorgement.

The relief of the defect or pain may reduce or relieve the ocular symptoms.

### 3. INTRA-OCULAR FOREIGN BODIES—THEIR LOCALIZATION AND REMOVAL.

HANS BARKAN,  
San Francisco.

Discussion opened by Lloyd Mills.

Accurate localization of foreign bodies if posterior to iris plane, great importance. Question of scleral incision underneath external or internal rectus. Splinting wound with these muscles.

Technique of magnet application.

Discussion of removal after considerable lapse of time since injury, with end results.

Demonstration series of foreign bodies with localizing diagrams and discussion.

Certain features of certain of these cases.

### 4. OPHTHALMOLOGIC OBSERVATIONS FROM MY SERVICE IN A. E. F. IN FRANCE.

VARD H. HULEN,  
San Francisco.

Orders for overseas. Base Hospital 104. Preparations for embarkation. Sailing on S. S. Mauretania; destination unknown. "Rest Camps." Journeying to Beau Desert, Bordeaux, France. On duty Hospital Center No. 2, A. E. F.

Arrivals of sick and wounded and distribution. Ophthalmic wards and special equipments. Eye injuries and work in Eye Clinics. Optical departments—their strength and their weakness.

The totally blinded. Ophthalmic consultants.

Lagrange's plastic work and the wonderful French Military Clinics for Eye Surgery. Deductions.

### 5. RUPTURE OF THE CORNEA—WITH CASE REPORTS.

GEO. KRESS, Los Angeles.

General remarks. Case reports. Man, age 65, laborer, eye struck by fist of fellow workman. Rupture of the cornea, entire vertical meridian. In initial pain, practically, all of the iris brushed out of eye by patient's hand. Lens also expelled. Condition went on to good healing.

Possible now for observer, which his naked eye, to see the nerve head of the injured eye on both sides of the scar.

With correcting glass of approximately a plus eleven sphere, combined with a plus one cylinder at 90, this injured eye is able to read the 3-60 line, plus one letter.

## GENITO-URINARY SECTION

Chairman's Address. L. J. Roth, Los Angeles.

### 1. INTESTINAL-VESICAL FISTULAE.

LOUIS CLIVE JACOBS,  
San Francisco.

Discussion opened by William E. Stevens.

Report of cases, the etiology, the pathology and treatment of the same.

### 2. URINARY INCONTINENCE AND ITS OPERATIVE REPAIR.

JAMES R. DILLON,  
San Francisco.

Discussion opened by Frank Hinman.

Brief review of literature. Etiology, Pathology. Operative indications and contra-indications. Operative procedure. Report of cases.

### 3. SURGICAL CONDITIONS IN THE GENITO-URINARY TRACT IN CHILDREN.

WM. E. STEVENS,  
San Francisco.

Discussion opened by L. C. Jacobs.

Frequency of kidney lesions in children requiring surgical treatment. Plea for a more thorough examination of the urinary tract. Cystoscopy. Ureteral catheterization. Functional kidney tests. Pyelography.

Pyelitis associated with strictures of the ureter and urethra. Hydronephrosis and dilatation of the ureter. Tuberculosis of the kidney.

Radiographs and Pathological specimens. Conclusions.

### 4. INVOLVEMENT OF THE GENITO-URINARY TRACT ASSOCIATED WITH ACTIVE PULMONARY TUBERCULOSIS.

ANDERS PETERSON.

Clinical cases and autopsy findings in patients with active pulmonary tuberculosis relative to the involvement of the genito-urinary organs. Observations made from material at the U. S. General Hospital, Fort Bayard, New Mexico.

## Wednesday Morning

9 A. M. to 12 M.

## MEDICAL SECTION

### 5. THE PROGNOSIS AFTER THE REMOVAL OF FOCAL INFECTIONS.

N. W. JONES,  
Portland, Oregon.

### 6. THE ROENTGEN DIAGNOSIS AND LOCALIZATION OF PEPTIC ULCER.

RUSSELL D. CARMAN,

Mayo Foundation, Rochester, Minn.

### 7. A CHEMICAL CONSIDERATION OF THE THYROID.

E. C. KENDALL,  
Mayo Foundation, Rochester, Minn.

## NEUROLOGICAL SECTION

Chairman's Address.

MILTON B. LENNON,  
San Francisco

### 1. DELAYED ULNAR PALSY FOLLOWING ELBOW INJURIES.

WALTER F. SCHALLER,  
San Francisco.

Report of cases. Discussion of clinical course and pathology. Differential diagnosis with especial reference to etiology of ulnar palsy, and literature references.

Discussion opened by Emmet Rixford.



## 2. EPISODIC MENTAL STATES AND BORDERLINE CONDITIONS IN PSYCHIATRY.

CHAS. L. ALLEN,  
Los Angeles.

Impossibility of setting a hard and fast standard of mental normality.

Fluctuations in the mental states of individuals, of groups and of peoples, particularly in the affective sphere.

Dependence of these variations upon individual make-up, somatic causes and social conditions.

Importance of these relationships in psychopathology and their estimation in diagnosis, prognosis and treatment.

Discussion opened by A. W. Hoisholt.

## 3. SCIATICA.

MILTON B. LENNON,  
San Francisco.

Its causes—particularly its mechanical cause.

Discussion opened by W. Baldwin.

## 4. NOTES ON PATHOLOGICAL REFLEXES.

THOMAS G. INMAN,  
San Francisco.

Question of pathological reflexes being always indicative of pyramidal tract disturbances.

Cross adductor Rossolimo, Bchterew-Mendel reflexes noted in conditions other than pyramidal tract disturbances.

Discussion opened by Milton B. Lennon.

# INDUSTRIAL MEDICINE SECTION

## 1. THE IMPORTANCE OF BOTULISM AS A PUBLIC HEALTH PROBLEM IN CALIFORNIA.

ERNEST C. DICKSON,  
San Francisco.

Discussion by Karl Meyer and Major J. Geiger, U. S. P. H. S.

## 2. INTESTINAL PARASITES.

C. A. KOFOID,  
University of California, Berkeley.

Discussion opened by W. E. Musgrave.

## 3. TREATMENT OF INTESTINAL PARASITES.

C. L. McVEY, Oakland.

Discussion opened by Herbert Gunn.

## 4. THE WORK OF THE STATE BOARD OF HEALTH.

W. H. KELLOGG, Sacramento.

Discussion opened by Frank Kelly.

## 5. THE NARCOTIC CLINIC.

DANIEL CROSBY, Oakland.

Discussion opened by W. F. Schaller, San Francisco.

# EYE, EAR, NOSE AND THROAT SECTION

## 6. RADIUM IN CATARACTS.

W. S. FRANKLIN and  
F. C. CORDES,  
San Francisco.

The paper describes the simple method of application which has been developed, the exposure, dosage used, and other technique, together with a tabulation of results.

Radium has been used by us for the past

nine months in the treatment of incipient cataracts. Over thirty cases have been observed. The results have been very encouraging; the vision has been improved, and the process apparently checked.

## 7. CATARACT EXTRACTION—THE SAFEST METHOD.

RODERIC O'CONNOR,  
San Francisco.

Discussion opened by W. S. Franklin.

The writer takes the stand that, under conditions in this country, an extraction in the capsule is inexcusable as a routine procedure. Statistics of results by both methods presented. Describes the safest method, in his opinion, of handling a cataract case.

## 8. TEETH, TONSILS AND SINUSES.

ROBT. B. SWEET,  
Long Beach.

Classification of all infections of the teeth, tonsils and sinuses under one head, as regards etiology, bacteriology, reflex symptoms, systemic effects. Intimate relation of teeth to tonsils and sinuses eyes and ears. Theories held by dentists regarding infected teeth. Plea for a more comprehensive view of head infections. X-Ray cases.

## 9. SURGICAL TREATMENT OF PITUITARY NEOPLASM.

EDWARD C. SEWALL,  
San Francisco.

Three cases operated upon under local anesthetic by the trans-sphenoidal-septae route. Recent case shows very positive improvement. Choice of route of approach to the sella is open to interesting discussion. From the standpoint of the patient the intranasal route furnishes distinct advantages.

# GENITO-URINARY SECTION

## 5. CANCER OF THE PROSTATE.

R. L. RIGDON, San Francisco.

Frequency underestimated. Lane Hospital Statistics.

Course Relief offered by (a) Operation, (b) Radium. Conclusions.

## 6. SOME FURTHER EXPERIENCES IN THE TECHNIC, NON-OPERATIVE, PRE-OPERATIVE AND POST-OPERATIVE TREATMENT OF SUPRAPUBIC PROSTATECTOMY CASES.

H. A. ROSENKRANZ,  
Los Angeles.

Discussion opened by R. V. Day.

A consideration of diet, catharsis, pre-operative purgation, diarrhea, flatulence, focal infections, nursing, two-stage versus single-stage operation, anesthesia, hemorrhage, pernicious hiccough, pain. Results as regards potency, ejaculation and bladder neck. Results in cancer.

## 7. A STUDY OF TUMORS OF THE VESICAL NECK AND PROSTATIC URETHRA WITH THEIR RELATION TO CHRONIC PROSTATIS.

L. P. PLAYER and C. P. MATHE,  
San Francisco.

Review of fifty cases. symptomatology. Diagnosis (a) Investigation with cysto-urethroscope. (b) Investigation of urine. (c) Serological investigation. (d) Elimination of other foci of infection. (e) Histological study and report. Treatment. Results following treatment. Recurrence.

Discussion opened by James R. Dillon.

**8. URETERAL TRANSPLANTATION.**

ROBERT V. DAY,  
Los Angeles.

Discussion opened by H. A. Rozenkranz.

In carcinoma of cervix uteri. Carcinoma and tuberculosis of the bladder. Causing urinary obstruction in a ureter or ureters from infiltration.

**SURGICAL SECTION****6. SOME DEFORMITIES OF THE HAND.**

WALTER I. BALDWIN,  
San Francisco.

Causes. Groups. Fractures. Tendons. Nerve injuries.

Discussion opened by John Dunlop.

**7. ATRAUMATIC TECHNIQUE AN ESSENTIAL IN RECONSTRUCTIVE SURGERY.**

STERLING BUNNELL,  
San Francisco.

Trauma during operations produces fibrosis. Fibrosis binds movable parts, destroying their function. To succeed in reconstructive surgery it is necessary to diminish our trauma to the minimum. Methods to accomplish this.

Discussion opened by H. M. Sherman.

**8. PRESENT STATUS OF THE SCIENCE OF ANESTHESIA AND THE ANESTHETIST.**

ELEANOR SEYMOUR,  
Los Angeles.

This subject will be touched on very lightly historically; the present status and problems more elaborately worked out and the importance of standardization especially emphasized.

Discussion opened by Mary E. Botsford.

**9. INDICATIONS FOR INFUSION AND TRANSFUSION IN CASES OF ACUTE HEMORRHAGE AND SHOCK.**

EDMUND BUTLER, San Francisco.

Absolute indication.

Theories of shock.

1—Acapnia theory.

2—Suprarenal exhaustion theory.

3—Nerve exhaustion theory.

Definition of shock.

Trauma and hemorrhage—their relation to shock.

Means at our disposal to know when transfusion is relatively indicated.

1—Subjective symptoms.

2—Objective signs.

3—Blood count, (a) venous blood; (b) capillary blood.

4—Blood volume.

5—Blood pressure.

1—Mild degree of shock; case report—indications for treatment used.

2—Moderate degree of shock—case report—indications for treatment used.

3—Severe degree of shock—case report—indications for treatment used.

Extreme degree of shock—case report—indications for treatment used.

Discussion opened by Herbert I. Chapman.

**10. RECENT DEVELOPMENTS IN RADIUM THERAPY—ILLUSTRATED WITH LANTERN SLIDES.**

REX DUNCAN, Los Angeles.

The purpose of this paper is to explain briefly the principles involved in the therapeutic application of radium emanation, the

use of which has greatly broadened the scope of radium therapy, and to illustrate the technique of application, together with the results obtained in various pathological conditions.

Discussion opened by \_\_\_\_\_.

**Wednesday Noon**

12 M. to 2:30 P. M.

**LEAGUE LUNCHEON**

GIVEN UNDER THE AUSPICES OF LEAGUE FOR THE CONSERVATION OF PUBLIC HEALTH.

**1. IMPORTANT CAMPAIGN ISSUES**

DUDLEY A. SMITH, M. D.

President of the League for the Conservation of Public Health.

**2. HOSPITAL BETTERMENT IN CALIFORNIA**

W. E. MUSGRAVE, M. D.

**3. ALL TOGETHER FOR BETTER HEALTH**

MR. CELESTINE J. SULLIVAN.

Editor of "Better Health".

**4. LEAGUE MEMBERSHIP**

W. T. McARTHUR, M. D.

Los Angeles.

Secretary of the League for the Conservation of Public Health.

**5. CHILD WELFARE AND THE SCHOOLS**

ADELAIDE BROWN, M. D.

Member of the California State Board of Health.

**Wednesday Afternoon**

2:30 to 5:30 P. M.

**MEDICAL SECTION****8. CHAIRMAN'S ADDRESS. A DISCUSSION OF THE PRESENT NURSING SITUATION.**

W. W. ROBLEE,  
Riverside, Calif.

**9. THE ORGANIZATION OF A METABOLIC UNIT.**

N. W. JANNEY,  
Santa Barbara, Calif.

Modern treatment of metabolic cases requires special organization.

Suggestions as to the organization of Metabolism Units as exemplified by the Memorial Metabolic Clinic of Santa Barbara.

**10. BASAL METABOLISM IN THYROID DISEASE.**

ALBERT ROWE,  
Oakland, Calif.

I. Previous Investigations.

II. The Value of Basal Metabolic Studies in the Diagnosis of Thyroid Activity.

(a) The differentiation of the neurotic from the hyperthyroid individual.

(b) Hypothyroidism and Hyperthyroidism.

III. Basal Metabolic Studies as a Guide to Operative and X-ray Treatment of Thyroid Disease.



# 11. HYPERTENSION IN WOMEN DURING THE MENOPAUSE.

ROLAND S. CUMMINGS,  
Los Angeles, Calif.

Secretion of Corpus Luteum possibly a hypotensive substance. Diminution of this substance causes the menopause and possibly disturbs endocrin balance.

In one hundred women, whose systolic pressures were over one hundred and sixty, forty-nine per cent. were in the menopause period. Other factors, as apical abscesses, chronic tonsillitis, chronic constipation, etc., were present in many also.

Apparent drop in pressures by use of Thyroid and Corpus Luteum extract.

# 12. A GROUP STUDY OF THREE HUNDRED CASES OF ARTHRITIS.

M. C. HARDING,  
San Diego, Calif.

Paper based on work done at Camp Lewis Base Hospital. Poor treatment in the general wards. Formation of the arthritis wards. Need of separate wards in the orthopedic department. Formation of the group and its personnel. Routine of examination by specialists. Percentage of various foci of infection. Treatment. Splinting. Salicylates. Heat. Operative treatment. Medical treatment. Results. Deductions drawn from the series.

prehistoric theories of disease—relation to prehistoric trephining, purposes of the operation, the amulet. Showing and consideration of specimens from Indian skulls obtained from ancient cemeteries in Peru.

These specimens show frontal sinus operations done 1500 to 2000 years ago.

# 13. A NEW DISEASE OF THE EAR.

HARVARD McNAUGHT,  
San Francisco.

Discussion opened by Josiah Kirk.

This in all probability is a sequel to Influenza, all five cases having had that disease. The physical findings similar to those of Oto-sclerosis would point to some bone changes analogous to those produced by that disease and probably caused by the toxins of B. Influenza.

# 14. SURGICAL TREATMENT OF ACUTE OTITIS MEDIA IN CHILDREN WITH REPORT OF CASE.

J. A. BACHER, San Francisco.

1. Indications for Surgical Intervention.
2. Surgical Procedure.
3. Report of Cases.

# 15. A STUDY OF NASAL CONDITIONS OCCURRING IN BRONCHIAL ASTHMA.

SIMON JESBERG,  
Los Angeles.

## EYE, EAR, NOSE AND THROAT SECTION

# 10. CLOSURE OF FISTULOUS OPENINGS THROUGH THE ALVEOLAR PROCESS INTO THE ANTRUM OF HIGHMORE; WITH LANTERN SLIDE DEMONSTRATION.

CULLEN F. WELTY,  
San Francisco.

Discussion opened by Harry Montgomery.

This surgical procedure is designed to close fistulous communications between the mouth and the Antrum of Highmore. The fistulous communications referred to are those that have refused to close, regardless of the method. The simple procedure of removing the alveolar process on either side of the fistulous communication until enough tissue is secured to come together; after this a horizontal incision is made in the median line the entire length of the hard palate. The mucous membrane and the periosteum elevated and incised at the site of the opening to be closed; a perforated metal disc through which a suture is introduced to hold the denuded parts together for a period of eight days, when the parts will be entirely grown together.

# 11. PLASTIC SURGERY OF THE NOSE; WITH LANTERN SLIDE DEMONSTRATION.

H. B. GRAHAM,  
San Francisco.

Discussion opened by Leo Eloesser.

# 12. PREHISTORIC TREPHINING OF FRONTAL SINUS.

FRANK A. BURTON,  
San Diego.

Key specimen in grasping prehistoric trephining, probable methods, instruments used, conjecture as to anesthetic, main

## INDUSTRIAL MEDICINE SECTION

# 6. CHAIRMAN'S ADDRESS—INDUSTRIAL MEDICINE.

R. T. LEGGE,  
University of California.

No discussion.

# 7. HOW CAN INDUSTRIAL SURGERY BE IMPROVED?

MORTON GIBBONS,  
San Francisco.

Discussion.

# 8. VALUE OF PHYSICAL EXAMINATIONS AMONG INDUSTRIAL EMPLOYEES.

CHAS. A. DUKES, Oakland.

Discussion opened by Mark L. Emerson.

## OBSTETRIC AND GYNECOLOGIC SECTION

Chairman's Address.

# 1. ROENTGEN TREATMENT OF UTERINE HEMORRHAGE.

L. C. KINNEY, San Diego.

This is a report covering twenty-five cases of metrorrhagia, including moderate sized fibroids, polypoid endometritis and irregular hemorrhages of the menopause. In all but one of these cases there has been a complete menopause after three Roentgen series and no untoward results. In all cases fibroids have become symptomless. Discussion of indications, contraindications and results.

Discussion opened by Albert Soiland.

**2. VARICOSE VEINS OF THE BROAD LIGAMENT.**

L. A. EMGE, San Francisco.

- 1—Discussion of the relative frequency of varicosities of the female pelvic circulation.
    - a—Their etiological significance as to congenital origin;
    - b—Their etiological significance as to acquired or secondary origin;
  - 2—Discussion of the symptoms.
    - a—As they present themselves in an obscure way simulating other ailments;
    - b—As they stand out as a single group after careful grouping of the facts.
  - 3—Discussion of the gross pathology.
    - a—The relation to sterility.
  - 4—Methods of diagnosis.
    - a—The reason why they are so often overlooked;
    - b—Suggestions as to proper examination.
  - 5—Treatment.
    - a—The maltreatment;
    - b—The obsolete radical way;
    - c—The logical way.
  - 6—Prognosis.
  - 7—Report of cases.
- Discussion opened by Frederic M. Loomis.

**3. HEAT, THE MOST PRACTICAL AND PROMISING TREATMENT IN UTERINE CARCINOMA.**

J. F. PERCY, San Diego.

- 1—Heat is the oldest known method of treating inoperable uterine carcinoma.
- 2—It is the only method that has survived and at the same time in any measure retained the confidence of surgeons the world over as to its value.
- 3—With increasing knowledge of the more thorough and wider application of heat it is entering upon a new era of successful and hopeful development.
- 4—The aim of the paper is to indicate the correct application of the heat in pelvic carcinoma and by case reports to demonstrate the utilitarian aspects of the heat treatment.

Illustrations with lantern.

Discussion opened by W. G. Moore.

**4. RETROVERSIONS OF THE UTERUS.**

FRANK LYNCH, San Francisco.

Etiology—Based on the fact that 54% of 1200 obstetrical cases in the University of California Hospital had posterior displacements from one to twelve months after delivery.

Tables classified according to spontaneous and instrumental deliveries and re-divided as to marked injury and lacerations of the pelvic floor.

Development of symptoms may be gradual. Follow up cases show that posterior displacement, per se, may not give symptoms. Unless there is disturbance of the pelvic circulations there need be no symptoms unless inflammatory changes are associated with displacement. Enteroptosis as cause of symptoms.

Treatment—Results of pessary treatment in displacements occurring in the Obstetrical Service, University of California Hospital.

Operation—Factors underlying proper operation. Results have shown that no one operation is satisfactory for all cases.

Treatment considered from a study of 300 cases of simple retroversion treated during the last four years.

Illustrations with lantern.

Discussion opened by A. B. Spalding.

**NEUROLOGICAL SECTION****5. MODERN TREATMENT OF NEUROSYPHILIS.**

HENRY G. MEHRTENS,

San Francisco.

Difficulty in estimating therapeutic values of the various methods

- a—Intensive intravenous and intramuscular therapy;
- b—Drainage of spinal fluid;
- c—Intradural methods;
- d—Methods dependent on irrigation of the meninges;
- e—Rectal therapy combined with meningeal irritation.

Selection of method of treatment.

Clinical results.

Discussion opened by W. F. Schaller.

**6. A CASE OF GLIOMA OF THE SPINAL CORD.**

RICHARD W. HARVEY,

San Francisco.

Etiology, symptoms, signs and course of gliomata of the spinal cord. Description of case in University Hospital—symptoms, signs, and diagnosis, and its course to termination.

Autopsy findings with demonstration of gross specimen, slides and photographs.

Discussion of treatment, with emphasis on conservation in intramedullary tumors.

Discussion opened by H. C. Naffziger.

**7. CRIME AND CRIMINALS FROM THE PSYCHIATRIC VIEWPOINT.**

HAROLD W. WRIGHT,

San Francisco.

Attempts to classify criminals. Marked improvement in our knowledge due to careful case records. Environment and innate defects of adaptation. The question of "responsibility." Confusion of the minds of juries. The work of Goring showing no "criminal type," but a diffuse defectiveness.

The folly of fitting the punishment to the crime and not to the criminal.

Possibilities of securing adequate protection for society.

Discussion opened by Norbert Gottbrath.

**8. THE FORMICATION TEST IN PERIPHERAL NERVE INJURIES—ITS INTERPRETATION.**

CHARLES L. TRANTER,

San Francisco.

A comparison of the intensity of formication elicited by pressure at the lower limit of the "zone of formication" (corresponding to the area of regeneration of affected nerve), with that elicited at the level of the lesion; and a determination of the daily increase in length of the zone, are both necessary for the proper interpretation of the test.

Of great value as part of the complete neurological examination. Is not a short cut to diagnosis: it may however be the only sign of regeneration during many months. Especially valuable now, there being so many patients convalescing from peripheral nerve injuries, the result of the war.



## GENITO-URINARY SECTION

### 9. EXPERIENCES IN TESTICLE TRANSPLANTATION.

L. L. STANLEY,  
San Quentin.

Discussion by R. L. Rigdon.

In past eighteen months testicles removed from executed men have been transplanted to old and otherwise deficient prisoners.

Some merely placed in scrotum, others sewed to recipient's atrophied gland.

Good results demonstrated by increased vitality, change of voice, improved eyesight, increased sexual activity, and general improved outlook in life.

Also brief history of the procedure, and reference to internal secretions.

### 10. BILATERAL NEPHRO-LITHIASIS.

G. W. HARTMAN and  
S. A. GOLDMAN,  
San Francisco.

Discussion opened by E. Spence DePuy.

Frequency of occurrence. Symptoms.

Diagnosis: (a) History, (b) Physical examination, (c) Clinical findings; Cystoscopic; functional tests; laboratory findings.

Treatment—Choice of operation; choice of side to be first attacked; post operative treatment. Report of cases.

### 11. SOME OBSERVATIONS FROM THE CLINICAL AND LABORATORY FINDINGS IN PYELITIS AND PYELONEPHRITIS.

LEON ROTH, Los Angeles.

Lack of parallelism of symptoms, clinical course and laboratory findings. Pathological consideration regarding absence of casts. Leucocyte count. Case Reports. Treatment.

### 12. URETERAL PYELOGRAPHY AND CYSTOGRAPHY.

GEO. G. REINLE, and  
E. SPENCE DePUY,  
Oakland.

Their present status and safety as Diagnostic Agents.

Discussion opened by George W. Hartman.

### 13. SUCCESS; AS APPLIED TO UROLOGY.

E. SPENCE DePUY,  
Oakland.

A Study of the Psychological principle governing success and the practical application of these laws.

Discussion opened by Granville MacGowan.

## Thursday Morning

9 A. M. to 12 M.

## MEDICAL SECTION

### 13. THE ELECTROCARDIOGRAPHIC STUDY OF HEART DISEASE.

ROLAND TUPPER.

Explanation of the normal electrocardiograph. Lantern slides of the various arrhythmias. Summary of what the electrocardiograph has taught us and its present-day uses.

### 14. THE DIAGNOSIS OF NON-TUBERCULOUS LESIONS OF THE LUNGS.

LLOYD BRYAN,  
San Francisco, Calif.

The X-Ray as an aid in the differential diagnosis of pulmonary conditions—non-tubercular.

Conditions which may be confused with tuberculosis.

Similarity and differential diagnosis between tuberculosis and lung tumors, Hodgkin's disease, metastatic malignancy, pneumoconiosis, coccidioides, abscess, cyst, bronchiectasis, Lues, calcium metastases.

Lantern slides of X-Ray plates illustrating the different conditions.

### 15. ARTIFICIAL PNEUMOTHORAX IN PULMONARY TUBERCULOSIS.

L. M. RYAN,  
Banning, Calif.

Giving briefly the history and theory of action of indications and contraindications for complications and their treatment. Results. Demonstration of apparatus, technique, temperature charts and radiographs. Value of in treatment of tuberculosis.

Discussion opened by H. E. Kirschner, Monrovia.

### 16. THE PROBLEM OF NON-TUBERCULOUS RENAL INFECTION.

FRANK HINMAN,  
San Francisco, Calif.

KARL F. MEYER,  
University of California,  
San Francisco, Calif.

1. Type of organisms causing infection; elective specificity of some bacteria: Differences in pathological lesions produced by the various organisms. Routes of infection. Predisposing factors. General and local immunity. Specific and Chemotherapeutic treatment.

2. Experimental attempts to reproduce the factors mentioned under (1).

3. Clinical Correlation: Classification of cases. Secondary conditions found. Surgical correction of predisposing factors. Vaccine treatment and its value.

## SURGICAL SECTION

### 11. PRIMARY CARCINOMA OF THE VERMIFORM APPENDIX.

B. J. O'NEILL, San Diego.

Frequency. Symptoms. Diagnosis and Differential Diagnosis. Relative Benignancy. Report of two cases.

Discussion opened by Thomas O. Burger.

### 12. THE RELIEF OF INTRACRANIAL PRESSURE.

HOWARD C. NAFFZIGER,  
San Francisco.

Diagnosis of intracranial pressure—acute and chronic. Indications governing treatment. Methods adopted. Choice of operative procedure. Results.

Discussion opened by Carl Rand.

### 13. OPERATIVE RESULTS IN SELECTED CASES OF CEREBRAL SPASTIC PARALYSIS FOLLOWING INTRACRANIAL HEMORRHAGE AT BIRTH.

CARL W. RAND, Los Angeles.

Review of literature of cases of intracranial hemorrhage following birth injury. Discussion of pathology involved. Report of six cases operated upon, with subsequent clinical course. Concussions.

Discussion opened by Howard C. Naffziger.

**14. CARCINOMA OF THE BREAST.**

CLARENCE MOORE, Los Angeles.

A plea for the earlier recognition of carcinoma of the breast by the physician. More thorough examination before operation, especially for remote metastasis. What may be expected from operation. Clinical report of 76 cases.

Discussion opened by Stanley Stillman.

**15. CYSTS AND FISTULAE OF THE THYROLINGUAL DUCT.**

P. K. GILMAN, San Francisco.

- 1—Embryology—development of the duct.
  - 2—Anatomy—structure of persistent portion or portions of tract.
  - 3—Pathology—lesions resulting from persistence of duct in part or as a whole, (a) solid growths; (b) cysts; (c) fistulae.
  - 4—Case reports. Eight personal cases.
  - 5—Diagnosis and treatment—differential diagnosis from other cystic and some solid growth. Treatment surgical.
  - 6—Conclusions.
- (Paper illustrated with lantern slides.)  
Discussion opened by Guy Cochran.

## INDUSTRIAL MEDICINE SECTION

**9. TREATMENT OF INDUSTRIAL DISABILITIES INVOLVING THE SPINAL COLUMN.**

H. L. LANGNECKER,

San Francisco.

Discussion opened by M. E. Rumwell.

Frequency; duration; economic value; importance of immediate correct diagnosis; recognition of industrial viewpoint; inadequate or delayed treatment; musculo-ligamentary group-bone injury group; complications such as anatomical variations, osteoarthritis, functional neuroses.

**10. STIFFNESS IN THE EXTREMITIES FOLLOWED BY ACCIDENT AND INJURY.**

A. L. FISHER, San Francisco.

- 1—Causes of stiffness. Nature and character of each of the following groups of lesions:
  - a—Bone;
  - b—Cartilage;
  - c—Synovial membrane;
  - d—Joint capsule;
  - e—Muscular;
  - f—Tendon;
  - g—Fascia;
  - h—Nerve.

2—Appropriate treatment of each of the above.

3—Prognosis: A recognition of those which may improve, and of those in which the loss of function must be accepted.

Discussion opened by James T. Watkins.

**11. DEFORMITIES OF THE HAND ACQUIRED AFTER ACCIDENT.**

Dr. GOTTLIEB.

Discussion opened by Lester I. Newman.

**12. THE ONE-ARMED IN INDUSTRY.**

LEO ELOESSER, San Francisco.

Discussion opened by R. W. Harbaugh or R. T. Legge.

**13. THE INDUSTRIAL SURGEON.**

G. M. BARRETT, San Francisco.

Discussion opened by G. G. Moseley.

## OBSTETRIC AND GYNECO- LOGIC SECTION

**5. ECLAMPSIA WITH SEVENTY CONVULSIONS.**A. B. SPALDING,  
San Francisco.**1. Case Report.**

Mrs. D. K. C., age 23, gravid. two, one spontaneous abortion. Headaches with periods lasting three to four hours. Pregnancy normal except moderate rise in blood pressure; labor due October 24, 1919; entered hospital October 27, 1919, with headache, gastric pain, blood pressure 150, casts in urine, few labor pains followed by convulsion. Cesarean Section. After regaining consciousness patient had three convulsions on day of operation, seven convulsions on 1st day P. O., eight convulsions on 2nd day, four convulsions on third day, three convulsions on fourth day, forty-four convulsions on fifth day. Gradually regained consciousness on eighth day with ultimate recovery. Report of clinical course, laboratory findings and treatment.

Discussion opened by Frank Lynch.

**6. POST-MATURITY OF FETUS.**

NORMAN H. WILLIAMS,

Los Angeles.

**1. Introduction.**

- (a) Relation of Prematurity; maturity; Post-maturity.
- (b) Relation of size of fetus and size of maternal pelvis; comparative stress laid on the above.

**2. Dangers of Post-Maturity.**

- (a) Fetal; asphyxia; instrumental injury; death by instrumentation.
- (b) Maternal; prolonged labor; exhaustion; inertia; injury to soft parts (uterus, cervix, vagina, perineum, rectum and bladder).

**3. Determination.**

- (a) Post-Natal; enlarged child; factors influencing size of child; length; weight; head.
- (b) Pre-Natal; time element; hereditary factor; history; fetal measurements; methods; Ahfeld, with Thoms modification; McDonald; Perret; X-Ray.

**4. Prevention.**

- (a) Induction of labor; abuse of "Obstetrics by Appointment"; condition and estimated size of child; comparative size of pelvis; time for induction.
- (b) Regulation of maternal nutrition during pregnancy.
- (c) Cases.
- (d) Bibliography.

Discussion opened by H. A. Stephenson.

**7. COMPARISON OF END-RESULTS OF RADICAL AND CONSERVATIVE PELVIC SURGERY.**

ALICE F. MAXWELL,

San Francisco.

1. Frequency and intensity of post-operative and physiological ablation symptoms and modifying factors. The value of ovarian therapy. Post-operative routine as carried out in the Gynecological Department of the University of California Hospital.
2. Frequency of pregnancy following conservative pelvic surgery in the presence of pelvic peritonitis.
3. Statistics from literature.
4. Conclusions.

Discussion opened by Frank Lynch.



# 8. OPERATIONS ON PATIENTS WITH LOW HEMOGLOBIN.

WILLIAM HENRY GILBERT,

Los Angeles.

Discussion opened by David Hadden.

## Thursday Afternoon

2 o'Clock

## SURGICAL SECTION

### 16. SURGERY OF THE CHEST.

CHARLES D. LOCKWOOD,

Pasadena.

This paper is based upon observation of chest wounds during the war. Forty-two wounded soldiers with chest injuries came under the author's personal supervision.

Military experience has taught us that surgery of the lungs can be brought under the same general principles as are applied to other organs of the body. The principles to be observed are:

- 1—Selection of anesthetic. Local anesthetic and Nitrous Oxide are best.
- 2—Free exposure of the field of operation. Discussion of the best methods of exposure.
- 3—Thorough removal of all infected tissue in traumatic cases, i. e. "debridement."
- 4—Tight closure of the chest wall, unless there is intopleural infection.
- 5—Drainage in all secondary infectious complications—hemorrhage, sepsis, pneumothorax.

Post-operative—Care, Posture, Carrel-Dakin, Irrigation, Aspiration. Methods of securing lung expansion.

Discussion opened by Emmet Rixford.

### 17. CARCINOMA OF THE DUODENUM WITH REPORT OF FIVE CASES.

EMMET RIXFORD, San Francisco.

Discussion opened by Clarence Moore.

## PERSONNEL OF THE HOUSE OF DELEGATES FOR 1920

### Alameda

#### DELEGATES

L. P. Adams  
E. E. Brinckerhoff  
Daniel Crosby  
C. A. Dukes  
M. L. Emerson  
R. T. Legge  
Pauline S. Nusbaumer  
Geo. G. Reindle  
Dudley Smith  
W. H. Strietmann

#### ALTERNATES

P. F. Abbott  
G. E. Brinckerhoff  
S. H. Buteau  
T. J. Clark  
W. A. Clark  
C. A. Depuy  
David Hadden  
W. H. Irwin  
T. C. McCleave  
H. G. Thomas

### Butte

#### DELEGATE

D. H. Moulton

#### ALTERNATE

N. T. Enloe

### Contra Costa

#### DELEGATE

G. M. O'Malley

#### ALTERNATE

C. T. Wetmore

### Fresno

#### DELEGATES

W. W. Cross  
J. R. Walker  
Kenneth J. Staniford  
J. L. Maupin

#### ALTERNATE

A. E. Anderson

## DELEGATE

E. J. Hill

Humboldt

Los Angeles

### DELEGATES

(For 1919 and 1920)

Leon Roth  
Granville MacGowan  
Edward T. Dillon  
W. T. McArthur  
W. R. Molony  
Harlan Shoemaker  
Stanley P. Black  
Lyle G. McNeile  
H. H. Sherck  
Chas. D. Lockwood  
Rea Smith  
Chas. W. Anderson  
W. W. Richardson  
Guy Cochran  
Lewis B. Morton

(For 1920 and 1921)

Bert Ellis  
A. F. Speik  
Andrew S. Lobingier  
A. R. Rogers  
H. G. Brainerd  
E. Avery Newton  
Geo. Piness  
Eleanor Seymour  
Albert Soiland  
O. O. Witherbee  
Frank Miller  
P. O. Sundin  
Harry Voorhees  
Joseph King  
J. J. O'Brien  
Geo. L. Cole  
Wm. Duffield  
Hill Hastings  
L. M. Powers  
F. C. E. Mattison  
Chas. W. Decker

### ALTERNATES

(For 1919 and 1920)

John V. Barrow  
Walter Wessels  
Thos. C. Myers  
W. H. Brownfield  
Nannie Dunsmoore  
Margaret Roberts  
A. J. Scott, Jr.  
Arthur S. Granger  
J. Mark Lacey  
Wayland Morrison  
Norman Williams  
Frank C. Wiser  
H. A. Rosenkranz  
Clarence Toland  
A. B. Cecil

(For 1920 and 1921)

Donald Frick  
A. H. Zeiler  
Clarence Moore  
J. L. Pomeroy  
C. P. Thomas  
L. Lore Riggan  
H. P. Wilson  
Caroline McQuisten Leete  
Byron Palmer  
G. H. Gailbraith  
Paul W. Newcomer  
Clarence Johnson  
Ross Moore  
Frank M. Mikels  
E. C. Fishbaugh  
Moses Sholtz  
E. M. Lazard  
R. B. Sweet  
Geo. Martyn  
M. L. Moore

## DELEGATE

L. L. Stanley

Marin

## ALTERNATES

A. H. Mays  
W. F. Jones

Mendocino

## DELEGATE

Frank McLean Campbell

## ALTERNATE

S. L. Rea

Merced

## DELEGATE

J. L. Mudd

## ALTERNATE

W. E. Lilley

Monterey

## DELEGATE

Garth Parker, Salinas

## ALTERNATE

E. W. Reeves, Salinas

Orange

## DELEGATES

H. A. Johnston  
H. M. Robertson

## ALTERNATES

R. A. Cushman  
W. C. Dubois

Placer

## DELEGATE

H. N. Miner

## ALTERNATE

B. A. Woodbridge

Riverside

## DELEGATES

L. M. Ryan (1920)  
Paul E. Simonds  
(1920-21)

## ALTERNATES

Bon O. Adams  
W. D. Rolph

Sacramento

## DELEGATES

J. W. James  
F. F. Gundrum  
E. T. Rulison

## ALTERNATES

W. J. Hanna  
E. M. Wilder  
A. M. Henderson

San Benito

## DELEGATE

L. C. Hull

## ALTERNATE

F. O. Nash

## San Bernardino

## DELEGATES

Howard G. Hill  
J. H. Evans

## ALTERNATES

C. F. Whitmer  
C. L. Curtiss

## San Diego

## DELEGATES

Robert Pollock  
P. M. Carrington  
L. C. Kinney  
W. W. Crawford  
R. J. Pickard

## ALTERNATES

Frank Bell  
F. P. Lenahan  
A. M. Lesen  
J. C. E. Nielsen  
Carl S. Owen

## San Francisco

## DELEGATES

H. E. Alderson  
W. C. Alvarez  
W. W. Boardman  
P. K. Brown  
F. B. Carpenter  
W. B. Coffey  
G. E. Ebright  
Leo Eloesser  
G. H. Evans  
W. S. Franklin  
H. W. Gibbons  
J. H. Graves  
H. P. Hill  
Frank Hinman  
Sol. Hyman  
Lovell Langstroth  
H. C. Moffitt  
Howard Morrow  
Emmet Rixford  
W. E. Stevens  
A. B. Spalding  
W. I. Terry  
V. G. Vecki  
C. F. Welty

## ALTERNATES

W. C. Voorsanger  
S. H. Hurwitz

## San Joaquin

## DELEGATES

Margaret Smyth  
R. T. McGurk  
B. J. Powell

## ALTERNATES

J. D. Dameron  
F. P. Clark

## Santa Barbara

## DELEGATE

Rexwald Brown

## ALTERNATE

W. H. Campbell

## Santa Clara

## DELEGATES

C. E. Saunders, San Jose  
Frank Paterson, San Jose  
J. C. Blair, San Jose

## ALTERNATES

Doxey Wilson, San Jose  
C. G. Wilson, Palo Alto  
D. A. Beattie, San Jose

## San Luis Obispo

## DELEGATE

W. M. Stover

## ALTERNATE

G. L. Sobey

## Shasta

## DELEGATE

Ferdinand Stabel

## ALTERNATE

G. A. Flora

## Solano

## DELEGATE

Robert Dempsey

## ALTERNATE

R. Allen

## Stanislaus

## DELEGATE

E. F. Reamer

## ALTERNATE

B. F. Surryhne

## Tulare

## DELEGATE

J. C. Paine, Exeter

## ALTERNATE

C. M. White, Visalia

## Ventura

## DELEGATE

D. W. Mott

## ALTERNATE

Edith Lamoree

## Clinical Department

## CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 5. March 6, 1915. Male, American. Age 10 years. No. 8847. C. D.

**Complaint:** "Headache. Anorexia. Abdominal pain."

**Family History:** Father dead, at age of 32 years of "stomach trouble." Mother living and well. One brother dead at age of 2 weeks of "typhoid fever," of which disease the mother supposedly suffered during the pregnancy. Maternal grandfather dead of pulmonary tuberculosis but no exposure of the child.

**Past History:** Full term, normal delivery. Breast fed for 1 year. Development normal. Measles at age of 3 years, varicella at the age of 7 years; neither with complications. Other than for frequent colds and headache, occasional enuresis, and a possible abortive pneumonia 4 months before entry, the past history is negative. The boy's diet is a general one, he drinks 1 quart of ordinary commercial milk daily, and has had no digestive upsets.

**Present Illness:** The child had been in good health until 10 days before entry when he developed pain in the lower part of the back and generalized pain in the abdomen. Headache was severe and there was frequent vomiting. There was fever, drowsiness, anorexia and moderate constipation. There were no chills. He had been confined to bed for 6 days previous to entry, and was finally sent into the hospital by his private physician with the diagnosis of typhoid fever, because of a positive Widal reaction.

**Physical Examination:** Thin, undersized boy of 10 years lying in bed complaining of pain in the epigastrium. He is exceedingly irritable, moaning constantly during the examination. The skin is clear except for a few suggestive rose spots on the abdomen. The mucosae are of good color, the cheeks flushed. Eyes, nose, and ears negative except for slight left sided mastoid tenderness. Teeth badly carious. Tonsils enlarged and cryptic. Tongue coated, breath foul. Anterior and posterior cervical glands just palpable. Chest, heart and lungs negative. Abdomen—scaphoid, generalized tenderness, but no rigidity or localized spasm. Spleen not palpated. Liver to costal margin in nipple line. No masses felt. Tympany in the flanks. Extremities normal. Reflexes, patellars sluggish. Biceps and triceps present on both sides. Babinski and Oppenheim negative. No rigidity of back or neck.

Temperature 38.3°C.; pulse, 120; respirations 24. Blood count: Hemoglobin 80%; R. B. C., 5,472,000; W. B. C., 9,450.

Differential: Polys., 77%; Lympho., 12%; Large monos., 9%; Eosinophiles, 2%.

**Urine:** Sp. gr. 1032, acid—negative for albumin and sugar. Diazo Reaction positive, acetone and diacetic acid not present. Sediment—no casts, occasional pus and epithelial cell.

**Blood Culture:** Sterile.

**Widal:** Negative.

**March 7:** Boy is irritable and objects to being touched. Mastoid tenderness suggestive, but there is still present the generalized hyperaesthesia. Headache and pain in the epigastrium still present. There is rigidity of the lower extremities, and a marked photophobia.

Temperature 39.5°C.; Pulse 78, Respirations 25.

**Blood:** 10,800 leucocytes with 65% polys.

**Urine:** As before.

**Widal:** Negative.

**Blood Culture:** Sterile.



**March 8:** Tenderness over both supraorbital notches. Tongue coated. Lungs negative except for slight interscapular dullness and a few mucus rales. Heart: soft systolic murmur at apex, transmitted to base. Pulse 75, but not dicrotic. Hyperaesthesia from VI Dorsal vertebra to I Lumbar, also over abdomen and back, especially marked in right hypochondrium and right lumbar region. Spleen not palpated. Rose spots questionable. Marked mechanical irritability over trunk, abdomen and extremities. Marked tenderness over superficial exits of intercostal, ulnar and popliteal nerves. Tenderness of calves. All tendon reflexes present but sluggish.

Examination of ears, by specialist, negative.

**Blood:** 15,000, with 60% polys.

**Urine:** Negative.

**Widal:** Negative.

**Blood Culture:** Sterile

**Von Pirquet:** Negative.

**March 9:** Lumbar puncture, 40 c. c. clear fluid under increased pressure; 500 cells per c. m. m. with 78% lymphocytes. Nonne +; Noguchi ++; Fehling's not reduced. Pellicle formed in 12 hours and numerous acid-fast bacilli demonstrated.

**Course:** From this time the case rapidly progressed to a fatal termination, and within a few hours after the release of the excess cerebro-spinal fluid most of the reflex signs of meningitis were present. Kernig, Babinski, Oppenheim, Neck sign and Brudzinski.

Eight days after entry a broncho-pneumonia supervened and death occurred on the 9th.

**Diagnosis:** Confirmed by autopsy: Tuberculous Basilar Meningitis, Acute Broncho-pneumonia.

**Discussion:** The particular interest in this case lies in the paucity of signs of meningitis, particularly of the tuberculous form. It is frequent enough to have a variability in the reflex signs of tuberculous meningitis so that at one time a Kernig or other pathological reflex is present, at another absent, but it is distinctly unusual to have them absent altogether so long after the onset of the condition, although early in the disease they may be. The headache and generalized hyperaesthesia are fairly frequently encountered as the only symptoms early in a meningococcus septicemia but in such cases blood culture gives the diagnosis in case the cerebro-spinal fluid does not. Increased pressure of the fluid is so frequent a finding in all acute conditions (amply proved in the influenza epidemic) that if increased cells or other changes are not demonstrable, one is not justified in considering such a fluid as absolute evidence of meningeal infection. It is often simply the result of congestion or hypersecretion and comes under the heading meningismus, and is not a true localized infection of the meninges.

The entrance of the case with the report of a positive Widal reaction delayed the making of the correct diagnosis, although this reaction could not be secured again. The justification of indiscriminate lumbar puncture for diagnostic purposes is now being brought in question because of the supposed danger of infection of the meninges in case of a septicemia. The delay in this case, however, was because of the preponderance of signs and symptoms of a typhoid type of infection. The relatively slow pulse was a development after entry and with the negative findings against typhoid furnished the clue. These consisted in the fact that the spleen was little if any enlarged, only suggestive rose-spots, constipation (so frequent in meningitis) the repeatedly negative Widal reactions and the sterile blood cultures.

The negative von Pirquet Reaction in fulminant tuberculosis in childhood is quite the rule, as is the Diazo Reaction in the urine—the latter has no specificity in any case.

## Book Reviews

**Principles of Nursing.** By Charlotte A. Brown. 262 pp. Illustrated. Philadelphia and New York: Lea & Febiger. 1919. Price \$1.75.

In this book of 248 pages the author endeavors to describe the qualifications for a nurse, the principles of personal hygiene, bacteriology, dietetics, and hydrotherapy, and most of the routine procedures and common treatments used in the care of the sick. Naturally, it is merely a synopsis of the subjects treated.

**A Text-Book Upon The Pathogenic Bacteria And Protozoa. For Students of Medicine And Physicians.** By Joseph McFarland, M. D., Professor of Pathology and Bacteriology in the University of Pennsylvania. Ninth edition, thoroughly revised. Octavo of 858 pages with 330 illustrations, a number of them in colors. Philadelphia and London: W. B. Saunders Company, 1919. Cloth \$4.75 net.

The author has revised the book to supply present day requirements of the student and practitioner. His preface is most interesting, particularly in regard to men of science,—their attitude before, during and after the war. It is a text book that might well be recommended.

S. R. D.

**Foot Care And Shoe Fitting.** By W. L. Mann & S. A. Folsom. 124 pp. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1920. Price \$1.75.

This small manual by two medical officers of the Marine Corps sets forth in plain language comprehensible to laymen and medical corpsmen information on the care of the feet, on methods of recording deformities and on the structure, care and fitting of foot-gear. It will be of interest to medical officers and officers of the line concerned in the care of their men's feet.

L. E.

**An Outline of Genito-Urinary Surgery.** By George C. Smith. 301 pp. Illustrated. Philadelphia and London: W. B. Saunders Company. 1919.

Handbooks, compends and works of that general description, usually call for no special mention and are generally dismissed by the reviewer with perfunctory notices; but here we have a small book which is sufficiently distinctive to merit more serious consideration. The whole scheme of presentation is not only admirably suited to the class of readers for whom it is intended, but the content of the book constitutes an excellent resumé of the scientific principles underlying the modern practice of genito-urinary surgery. We take it that it additionally reflects to a large extent the teaching of that particular school of urology which has its nucleus in the Massachusetts General Hospital.

Inasmuch as the book is primarily intended for students and general practitioners much that is found in larger works on the subject has been eliminated from consideration; on the other hand, considerable stress has been laid on the pathology of various disorders; and it is apparent that the author has taken considerable pains to clearly explain those scientific procedures useful and often necessary in the diagnosis of various genito-urinary diseases. To sum up, the author makes no attempt to make specialists by the study of his book; he describes in detail the diagnostic and therapeutic measures accessible to every medical man, but states definitely the boundary at which medicine ends and urology begins.

A. J. L.

**Modern Surgery: General and Operative.** By J. Chalmers DaCosta, M. D., Samuel D. Gross Professor of Surgery, Jefferson Medical College, Philadelphia, Pa. Eighth Edition, Re-

vised, Enlarged and Reset. Octavo of 1697 pages, with 1177 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$8.00 net.

The exigencies of war service have naturally handicapped the author of this popular text book in the preparation of a new edition; but he has produced a very satisfactory volume that is not likely to diminish his popularity or to leave his readers uninformed on any material point of present-day surgery. If the butter is a bit thin in places, it covers the ground and numerous references indicate where more may be obtained by those who require it more thickly spread. It would be too much to expect at present any final or complete digest of the advances—or changes—in surgical technique that have resulted from war experiences; and the size of the book, bulky as it is and at times presenting a rather crowded arrangement, of necessity forbids the elaboration of special branches of surgical work and knowledge. But this is largely compensated for by the writer's experience as a teacher and surgeon, his sound judgment, his cleverness in condensation, and the care and detail with which essential facts and practice are presented. Matters still undisputed are presented with the discussion that will enable the student to form correct surgical opinions assisted by the author's balanced and conservative judgment. While offering the advantages of a well written surgical handbook founded on the wide reading and individual experience of the teacher and practitioner, special departments have had the advantage of revision by authorities on their subjects. The book may be recommended to students and surgeons as being sound, practical and brought up to date.

G. A. H.-A.

**Peritoneum.** By Arthur E. Hertzler. Two volumes. 870 pp. Illustrated. St. Louis: C. V. Mosby Company, 1919. Price \$10.00.

The two volumes constitute the careful review of the complete literature on the peritoneum with additions of personal observations made during the period of a long and successful practice as a surgeon and a teacher.

The first volume deals mainly with biological questions. Here are given the physiology, histology, gross anatomy and embryology. There is also an interesting chapter on wound healings, adhesions and their prevention. The space allotted here is too small to do justice to the biological review. It can only be said that it is very complete and readily understood. The fundamental points are set forth clearly and concisely. The biological review deserves the highest credit. Those chapters dealing with adhesions, inflammatory reactions and changes in circulation should be read by every surgeon, as they give valuable information. Also, here discussions are clear and sufficiently brief and make this volume a valuable asset as a reference book for the teacher as well as for the practitioner and student.

The second volume is divided into two parts. The first deals exclusively with peritonitis as an entity, and the second concerns itself with various types of peritonitis in its relation to disease of the individual organs of the abdomen. There is a long chapter on appendicitis which, I feel, should have been more concise since it branches out into the usual long discussion on appendicitis as a disease. While it is very well written, it does not belong in this book, at least, not in this form. Aside from this, the second volume deserves the credit given to the first but it does not represent the importance and need of such a voluminous review as is given the first volume. Time spent in reading this treatise will be well compensated by the information gained.

The bibliography in general is excellent and most complete.

L. A. E.

**Syphilis.** By Henry H. Hazen. 647 pp. Illustrated. St. Louis: C. V. Mosby Company, 1919. Price \$6.00.

The author has produced a manual on syphilis that fairly merits its claims to "cover the whole field of syphilis in an authoritative way." Within the limits of a volume of this size, one can not expect to find so immense a subject discussed with meticulous detail. But while minor matters are not needlessly enlarged upon, the reader will find little to criticize in the amount of space devoted to the more important manifestations of the disease and he should find the book useful and sufficient for his purpose at most times. It is clearly written, well illustrated and indexed, has a good bibliography, and the author has availed himself of the assistance of writers on their special departments who are generally successful enough in their descriptions of the disease as it is manifested in their particular practice and in the modifications of treatment called for.

Doctor Hazen is responsible for a careful study of syphilis, its history, pathology, cutaneous lesions and more general incidence. He is practical; being neither diffuse nor sparing in essential detail. Collaborating with Dr. John Dunlop, he adds a useful chapter on syphilis of the genito-urinary organs; Dr. John E. Lind contributes a fairly full account of its effects on the nervous system, while Dr. Louis Green is responsible for the section on the eye and Dr. Virginius Dabney for the ear. Diagnosis and treatment are discussed with a sense of the importance of the newer laboratory work and clinical technic that assists the reader to a clear understanding of the more recent successful methods of scientific medicine.

G. A. H.-A.

**The Medical Clinics of North America.** Volume III, Number III (The Mayo Clinic Number, November, 1919). Octavo of 296 pages, 79 illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Published Bimonthly. Price per Clinic year: Paper: \$12.00, cloth \$16.00.

W. L. Benedict: Report of a case of retinitis circinata associated with tuberculosis. H. W. Woltman: Facial paralysis. E. C. Kendall: Chemical and physiologic nature of the active constituents of the thyroid. W. M. Boothby: Value of the basal metabolic rate in the treatment of diseases of the thyroid. F. A. Willius: Preoperative treatment of hyperthyroidism. P. P. Vinson: Case of cardiospasm with dilatation and angulation of the esophagus. W. S. Lemon: Mediastinal affections in childhood. Differential diagnosis of mediastinal affections. F. A. Willius: Myocardial disease with reference to the sub-endocardial myocardium. D. M. Berkman: Dietary instructions. G. B. Eusterman: Syphilis of the stomach. R. D. Mussey: Pancreatic carcinoma. J. A. H. Magoun, Jr.: Retroperitoneal tumors; report of two fibromyomas. L. J. Stacy: Treatment of carcinoma of the uterus by radium. H. C. Bumpus: Radium therapy in cancer of the prostate. E. H. Weld: Renal absorption with particular reference to pyelographic mediums. W. W. Bissell: An instance of primary portal thrombosis. H. E. Marsh: Report of fifteen cases of erythremia. A. Archibald: Aplastic anemia. H. Z. Griffin: Tuberculosis of the spleen. T. L. Szlapka: Two patients with pernicious anemia alive more than three years after splenectomy. Winifred Ashby: Some data on the range of life of transfused blood-corpuscles in persons without idiopathic blood diseases. A. H. Sanford: Blood transfusion. J. H. Stokes: Case of early lepra. Solitary cutaneous nodular recurrences as aids in diagnosis of obscure visceral syphilis. Three cases illustrating the diagnosis and treatment of syphilitic involvement of nervous system. Etio-



logic analysis of chronic urticaria following influenza, with comment on treatment. Interstitial keratitis in heredosyphilis following influenza, with comment on treatment. Protection of kidney in intensive antisyphilitic treatment with special reference to influence of dental focal infections.

**Orthopedic and Reconstruction Surgery, Industrial and Civilian.** By Fred H. Albee, M. D., F. A. C. S., Professor and Director of Department of Orthopedic Surgery at the New York Post-Graduate Medical School and at the University of Vermont. Octavo volume of 1138 pages with 804 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$10.00 net.

It is to be expected that a book from Albee's pen would be a record of his personal views and experiences. Accordingly, the chapters of the present volume are of quite varying value. Many of them, dealing with topics in which the author is not personally interested, are so cursorily treated that they might be omitted without detriment; many are taken almost in their entirety from the work of others.

The chapters, however, that have to do with specifically Albeean procedures are excellent. They treat of the bone-graft in every imaginable application. They give an admirably clear exposition of the technique of the various bone-grafting procedures, and are illustrated by extraordinarily convincing series of figures taken from drawings and from photographs and X-rays of patients. The chapter on the treatment of malunion and non-union of the long bones by bone-graft is especially good. Many of the other chapters also contain good expositions of the application of bone-grafts to various orthopedic maladies. The use and technique of the bone-graft is described for diseases of the spine, including scoliosis; for the fixation of joints; for defects of the jaw and skull; as a remedy for congenital defects of the bones, and deformities (such as clubfoot); and as a retentive brace (in widening the upper edge of the acetabulum in congenital dislocation of the hip). There are complete descriptions of the author's instrumentarium, his electric appliances and his orthopedic operating table.

We would wish that later editions might contain statistics as to the functional end-results in bone-grafts for defects of the long bones. Should they corroborate Albee's expectations, they would be valuable in refuting the opinions of English and French surgeons as to the poor functional results of bone-grafts in large osseous defects.

Each chapter has a long bibliography added, which would be more useful if it were arranged alphabetically and if the authorities cited were chosen with more care.

The book will interest every surgeon and should have a wide sale.

L. E.

**1918 Collected Papers of the Mayo Clinic,** Rochester, Minn. Octavo of 1196 pages, 442 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth. \$8.50 net.

This volume maintains the standard of excellence and interest so well shown in the previous volumes. It contains more than a thousand pages of reading matter ranging from surgical and other clinical studies to the results of experimental investigations along various lines. Almost one-quarter of the volume is devoted to the alimentary canal and about the same space to the head, trunk, and extremities; while the remainder is variously apportioned to the urogenital organs, ductless glands, blood, skin, and syphilis, nerves, technic and other matter. All the articles which go to make up the volume have appeared in various publications, the references to which may be found in connection with each article.

It is almost impossible to review a work of this kind except in the most general way. For the abdominal surgeon that part devoted to the alimentary canal will naturally have the greatest interest; here he will find a very interesting account of forty cases of gastric syphilis, a condition obviously not so rare as was once believed; an article on the etiology of cholecystitis which according to the author is largely streptococcal; a study of the recurrence of symptoms following operations on the biliary tract; the surgical treatment of the cirrhotics of the liver and their complications, and other contributions. Contrasting this volume with some of the previous ones it is noteworthy and striking that much less space is devoted to the stomach, and that only one article deals with gastro-enterostomy and that with the treatment of peptic ulcer.

In the genito-urinary section a very instructive paper may be found on the radiographic diagnosis of renal tuberculosis. Under ductless glands will be found five excellent articles, one on the blood picture in exophthalmic goitre, another on the thyroid hormone, a third on cancer of the thyroid, a fourth on the principles of thyroid surgery, and lastly, one on the treatment of myelocytic leukaemia by splenectomy and radium. The author of the last named paper was able to study twenty patients who had been treated in this manner, and concludes that so far as his observations went he could find no evidence that the duration of the disease is altered in any definite way by splenectomy.

The section on blood contains a number of interesting papers, the most noteworthy being the one by Georgine Luden entitled *Studies on Cholesterol*. In view of the practical results which may follow studies along more or less similar lines, this contribution is perhaps the most important and suggestive in the whole volume. The basis of this investigation rests on the observations of Murphy and Morton who in 1915 noted the fact that animals in which cancer transplants did not take showed an increase up to two hundred per cent. in the lymphocyte count while those not endowed with this natural resistance showed no such increase. This suggested some relation between lymphocytosis and the observed resistance to cancer transplantation, a suggestion which appears to be supported also by observations made on the blood of cancer patients treated by radium or X-rays. It has been shown by Luden that the cholesterol content of the blood is in some way closely associated with the presence or absence of lymphocytosis, high cholesterol content usually being accompanied with small numbers of lymphocytes and low cholesterol percentages with more or less lymphocytosis. An extensive study of the influence of diet on the amount of cholesterol in the corresponding fluctuations in the cytology of the blood thus evidencing an intimate relation between the chemistry and cytology of the blood and diet. While the results of the research can not yet be regarded as conclusive or sufficiently developed to warrant enthusiastic deductions with reference to practical applications, investigation of this kind may do much to remove some of the prevailing pessimism regarding the cancer problem.

The section devoted to the head, trunk and extremities, covers a variety of subjects from the etiology and treatment of poliomyelitis, and the use of radium in cancer, to papers of interest to the orthopedic and general surgeon. Under nerves will be found an analysis of the nervous symptoms in pernicious anaemia based on the study of 150 cases, the surgical treatment of progressive ulnar paralysis, and the results of the surgical treatment of spinal cord tumors. The volume concludes with several articles on technic and a final section headed "General," under which have been grouped papers not conveniently brought under other headings.

A. J. L.

## Correspondence

### WHAT THE DOCTORS THINK OF THE INDEMNITY DEFENSE FUND

San Francisco, Feb. 10th, 1920.

To the Editor:—

Enclosed please find my check for \$15.00 together with my note for the further sum of \$15.00 for the Indemnity Defense Fund and I wish to thank you for the reminder sent me.

I believe that the present method of bringing it to the attention of all the physicians is going to be productive of good results. I know it was just what I needed—although I had been thinking seriously of it for some time.

With best wishes for the success of the Indemnity Defense Fund, I am,

Respectfully yours,

Los Angeles, March 6, 1920.

To the Editor:—

Enclosed find check for Thirty Dollars that I may become a member of the Indemnity Defense Fund, as per letter of February 9, 1920.

Thanking you for calling my attention to my laxity in not joining earlier, still today I have a clean slate regarding malpractice suits but one can never tell.

Sincerely yours,

Gilroy, Calif., April 5, 1920.

To the Editor:—

Inclosed my check for \$15.00 and my note for the same amount to cover membership in the Indemnity Defense Fund of the Society.

I should have taken this step before but have put it off and then forgotten it.

Yours very truly,

Los Angeles, Feb. 10, 1920.

To the Editor:—

Please find enclosed check in your favor for \$30.00 being my contribution in full to the Indemnity Defense Fund. I have always meant to join this Fund and have delayed it from mere oversight. Your letter just received reminded me of my duty in the matter.

I am, yours faithfully,

Bakersfield, Cal., April 5, 1920.

To the Editor:—

Find enclosed Thirty Dollars (\$30.00) for cash indemnity against malpractice.

I have been intending to do this for a long time; finally got to it.

Very truly yours,

### ANOTHER FRAUD

To the Editor:—

We are advised under date of March 31, by Miss M. E. Murphy who conducts a corset store at No. 241 Geary Street, that an individual who posed as Doctor H. M. Mead, Pixley, Calif., had presented a check for \$100 in payment for merchandise, and it was later found that the individual had no funds in the bank, nor was there any one by that name known at Pixley.

Perhaps it might be well to give the item a little publicity, so that perchance some reader of the Journal may not be victimized.

Yours very truly,

L. B. PINKHAM, M.D.,

Secretary-Treasurer, Board of Medical Examiners, State of California.

### DR. GRETH ON CHIROPRACTIC

Extract from letter of Dr. August Greth, of Los Angeles, dated March 1, 1920:

"I deem it timely to write setting forth clearly the precise place that so-called Chiropractic fills. I

took this course years ago and happen to know many of the more successful chiropractors here. Their Pathology is, as you know, remarkably simple, i. e. All diseases are caused through spinal nerve pressure due to subluxation or erosion of vertebrae and their interv. cartillages. Many are convinced of that, others not so much; but all know a good thing when they see it; for there are among them many only out for money; it is a gold mine, as I know some that made for years from \$50 to \$75 per day, and that in a few hours of not very hard physical work, and minus brain strain and C. O. D. in addition."

### HOSPITAL HEADS FAVOR PSYCHOPATHIC HOSPITAL

Sacramento, Cal., March 29, 1920.

To the Editor: At a meeting of the Medical Superintendents of the California State Hospitals for the Insane, held at Stockton State Hospital on March 16th, the enclosed Resolution offered by Dr. Robert Lewis Richards of the Mendocino State Hospital and seconded by Dr. F. O. Butler of the Sonoma State Home, was passed, and as per the terms thereof, I am enclosing herewith a copy of the same for your publication.

Very respectfully,

E. S. BIRDSALL, Secretary,  
California State Commission in Lunacy.

RESOLVED, that it is the sense of this meeting of Medical Superintendents of the California State Hospitals that the mental problem of California requires preventive measures, early treatment, research, and convalescent care, as well as the intensive, prolonged treatment of State Hospitals; that, therefore, a State Psychopathic Hospital, in San Francisco, under the direction of the Regents of the University of California, is urgently needed for research, teaching and social service; that the teaching facilities should be offered to the two medical schools of the University of California and the Stanford University, and that this Resolution be transmitted to the Governor, the Board of Control and the California State Medical Journal.

### HOW TRUE!

San Francisco, March 30, 1920.

To the Editor:—

In your March number you brought a very moderate answer to a circular sent to numerous physicians in this State, by the W. C. T. U. in re the U. S. Pharmacopoeia and the well known food expert Dr. Harvey Wiley, and the prevailing epidemic of influenza.

The last few days brought us, however, some pleasant news, which the ladies of the W. C. T. U. should share with us, so as not to deprive them of a chance to bring their activities to play in the favor of their good cause.

A gentleman well known to the public and the citizenry of the State of California as a legislator, ex-member of the State Board of Pharmacy, pharmacist, physician, and undertaker, announces per the circular route to the physicians of this city, that owing to the fact that so few of the pharmacists carry a federal license for supplying liquor, he will fill the much needed want of supplying distilled spirits—whiskies, wines, brandies, and such like upon a prescription, supplying only government stamped goods direct from the bonded warehouse, at reasonable prices.

Following the example of a southern state, he names his place of business—a dispensary. No distinctive adjuvant or corrective seem necessary to the name.

Thus the druggist is at one stroke relieved from the odium of being a whiskey peddler, and the physician is duly given a new position as prescribing clerk, in due accordance with the law, if the same is not filled by the owner.



The law with two loop holes—medicinal and sacramental—is evidently to be opened wide—15 to 20 gals. of wine for sacramental purposes—causing a dispute between learned theologians as to the relative applicability of grape juice,—and an open dispensary with stated hours with the pharmacist, physician, undertaker, legislator proprietor, together with Congressman Sheppard's admission of a well-stocked cellar, should certainly cause the W. C. T. U. to go deeper in their pharmacopocical studies and ascertain from Dr. Du Mez commentaries to the Pharmacopoeia the reason why whiskey was left out of the Pharmacopoeia, as well as why Dr. Wiley's opinions are not infallible, with California fruitgrowers.

Yours very truly,  
ALFRED EICHLER, M.D.

## Medicine Before The Bench

In this column will appear with appropriate comment, from month to month, court decisions and proceedings affecting the various phases of medical practice, the conduct of hospitals and the enforcement of public health laws.

### Flewitt Before Oppenheim Again.

H. R. Flewitt, chiropractor, with offices at Valencia and Market Streets, San Francisco, was arrested March 15, 1920, charged with violation of Sec. 17 of the Medical Act.

A similar charge against Flewitt was dismissed by Judge Morris Oppenheim.

### Professional Competitors!!

The Oakland "Daily Post" March 30, 1920, prints a three column full page advertisement of the Alameda Chiropractic Association (Inc.), wherein appears, "the Board of Medical Examiners is grossly incompetent to pass on the qualification of a chiropractor because its members are ignorant of the first principles of chiropractic." Reputable chiropractors will not submit themselves to be examined by their professional competitors.

### Chiropractor Forfeits And Repeats.

Clarence Boswell, chiropractor, arrested in Los Angeles March 22, 1920, charged with violation of the Medical Practice Act and was released on \$100.00 bail. Boswell was arrested on a similar charge a month ago and forfeited a \$100.00 bond according to Police Records.—Los Angeles Examiner.

### Can You Sell Your Practice?

Dr. Frederick Rossiter and Dr. Elmer Thompson appeared before Judge Valentine in Los Angeles County to determine who is entitled to a large practice in Burbank and Glendale. Dr. Rossiter claims he bought out Dr. Thompson, who agreed to remain away; however, Dr. Thompson states the agreement was for the period of the war only.—Los Angeles Herald.

### Chinese Doctor Repeats.

S. N. Wong, Chinese herb doctor, plead guilty in Fresno on March 1, 1920, to a charge of practicing medicine without a license and was held to answer to the Superior Court with bail set at \$200.00.—Fresno Republican.

### Salves On Bail.

W. R. Thurber, who for the last month has been selling so-called "cure-all salves" at Fourth and K streets, Sacramento, was placed under arrest March 18, by Operator A. C. Favette of the Board of Medical Examiners, charged with violation of the Medical Act and released on \$300.00 cash bail.—Sacramento Union.

### Salisbury Forfeits Twice.

Frank Salisbury, charged with violating the Medical Act, enriched the treasuries of Fresno and San Francisco counties by forfeiting \$250 to Fresno and \$100 to San Francisco. He is

reported to be en route to the Antipodes and will doubtless soon make similar donations in the land of the kangaroo.

### Self-styled "Doctor" Sought.

Officers throughout the southwest are searching for J. P. Mason, self-styled doctor and termed by officers as a "slicker" on the charge of obtaining money under false pretenses. He is a good dresser and fluent talker.—San Bernardino Index.

Reports have come from licentiates that an individual using a similar name, has victimized them by obtaining money under false pretenses. Look out for him.

### Who Knows "Doctor" La Salle?

"Doctor" Charles La Salle, who is reported to be conducting the California Clinical Laboratories, Laughlin Building, Los Angeles, is said to be wanted by the Los Angeles County authorities on a charge of issuing fictitious checks. "Doctor" La Salle is not licensed in California and his claim of Illinois license has not been confirmed.

### Oroville Practitioner Fined.

A. F. Francis, arrested recently by the investigators of the Board of Medical Examiners, charged with violation of the Medical Act, plead guilty before Judge Gregory in Oroville, March 10, and paid a fine of \$100.00.—Oroville Register.

### Who Knows Goscinsky?

Alfred C. Goscinsky, recently arrested in King City charged with practicing medicine without a license, alleges he is a graduate of a medical college in Germany; that he was issued a license to practice in California in 1898 by Dr. Chas. Wadsworth, deceased, then secretary of the Board; that he was a resident of San Francisco at the time of the fire April 18, 1906, which destroyed all his credentials. No record of his having been issued a license can be found by the Board of Medical Examiners.

### Suit For Damages.

Saviour Barrance filed a suit in Judge Harry W. Pulcifer's court, Oakland, charging Dr. F. J. Peter, physician and surgeon, associated with the North American Hospital Association, with having performed an illegal operation on the wife of Barrance when it was not necessary. The suit for \$299.00 damages alleging malpractice involves Dr. Peter and the association.—Oakland Enquirer.

### Olsen Pleads Guilty.

A. L. Olsen, arrested in Los Angeles charged with violation of Sec. 17 of Medical Practice Act, plead guilty before Judge Frederickson and was given a sentence of \$100.00 or 100 days. Sentence was suspended for two years on condition that Olsen would not violate the Medical Act during that time. It is stated he had been arrested in Washington on a similar charge.

### Herb Specialists Arrested.

Chow Juan, N. G. Suey, Chen Shun, Leetai Bong, M. T. Mar, Y. Wong and On Wo arrested in Stockton, March 15, 1920, by investigators of the Board of Medical Examiners, charged with violation of the Medical Act. The Chinese recently paid fines in Judge Plummer's court for practicing as "Chinese Doctors" and following this, they changed their title to read "Herb Specialists."—Stockton Record.

### Herb Doctor Sued For \$9,550.

T. Wah Hing, Chinese herb doctor of Sacramento, convicted of practicing medicine without a state license, and later fined for dealing in contraband drugs, is made defendant in a suit for \$9,550.00 claimed due by J. Poncioni for alleged failure to comply with the terms of a land sale contract.—Sacramento Bee.

### Osteopath Contests Decision.

Dr. W. F. Harlan of Arbuckle, an osteopath whose license to practice in California was re-

voked by the Board of Medical Examiners at the February meeting after adjudging him guilty of exceeding his authority in prescribing drugs, has filed formal notice of his intention to contest the action of the Board.—Sacramento Bee.

#### Ex-Governor Defends Chiropractor.

A. B. Hinckley, chiropractor of Richmond, charged with violation of Sec. 17 of the Medical Act, when he appears for trial in Martinez will be defended by Ex-Governor E. L. Morris of Wisconsin, National Counsel for the Chiropractors. The prosecution will be handled by District Attorney A. B. Trinning and Chief Counsel Encell and Frank Smith representing the Board.—San Francisco Chronicle.

#### The People of The State of California

vs.

#### Ephraim Northcott.

In a strong decision covering death from unlawful operation, condition of the woman victim, intention of defendant in preparing place for handling abortion cases, efforts to avoid detection, value of testimony of accomplice, performance of other illegal operations and intent and motive, Judge Langdon in the Appellate Court affirmed the decision of the lower court in convicting Ephraim Northcott of an unlawful abortion on Miss Inez Reed which caused her death. The decision of Judge Langdon was concurred in by Justices Brittain and Nourse, and the application for a hearing was denied by the Supreme Court.

The District Court of Appeals states the "record leaves no doubt of the guilt of the defendant." The court says that there is a wide divergence of authority upon the question whether under a statute such as ours the burden of establishing that the abortion was actually necessary is an affirmative defense, or whether the proposition is to be negated in the first instance by the prosecution.

"But the appellant contends in this connection that the burden of establishing the fact that the operation was a necessary one to preserve the life of the mother was upon the defendant, and that as he did not put this defense in issue, and denied that he had performed any operation upon the deceased, or, indeed that he had ever seen her—the state was not obliged to go into the question of the illegality of the operation, but the illegality would be presumed upon proof of the operation. But since the appellant concedes that the proof is proper where the state is called upon to do more than appellant contends it is called upon to do in the present instance, we are in the position—as stated before—where the state has sustained a greater burden than required. There is no failure of proof, but merely an excess of proof. Assuming that the proof was sufficient to connect the defendant with the performance of the operation upon the deceased, the facts in evidence leave no doubt that there was no legal justification for the performance of the operation. They raise an "irresistible inference," as said in *People v. Wright*, supra, of the criminal character of the operation. And surely in view of the constitutional provision against setting aside judgments because of the improper admission or rejection of evidence unless it shall appear from an examination of the entire record that there has been a miscarriage of justice—we would not be justified in setting aside a verdict of the jury because the district attorney has proved more than was necessary in order to make out his case."

## County Societies

### CONTRA COSTA COUNTY

The last meeting of the Contra Costa County Medical Society was held at the Hercules Hospital, Hercules, February 13, Dr. G. M. O'Malley pre-

siding. The minutes of the previous meeting were read and approved. Applications from Drs. L. St. John Hely and J. M. McCullough for transfer to this society were accepted.

Dr. O'Malley was elected delegate to the State Convention with Dr. C. T. Wetmore alternate.

A letter from the Southern California Society of Anesthetists was read and the resolution submitted by them, "Resolved that this organization go on record as in favor of the limitation of the practice of anesthesia to regularly licensed physicians and surgeons," was unanimously adopted.

The program consisted of a paper by Dr. Sterling Bunnell of San Francisco on "Management and Treatment of Fractures," and a paper by Dr. Thomas Inman of San Francisco on "The Neuroses."

Light refreshments were served before departing.

### LOS ANGELES COUNTY.

#### Urological Section.

There has recently been formed a Urological Section of the Los Angeles County Medical Society consisting of sixteen charter members with the following named officers: Granville MacGowan, President; R. V. Day, Vice-President; H. A. Rosenkranz, Secretary; Ralph Campbell, President-elect.

March 4, 1920.

Meeting of the Los Angeles County Medical Association at 8 P. M. in the Friday Morning Club Hall.

Dr. Rae Smith, the president, called the meeting to order.

The program began with the subject "Résumé of Literature and Recent Experiences in Epidemic Encephalitis (Sleeping Sickness)" by Drs. Ross Moore and A. R. Timm.

Dr. Fisher in discussion stated that during the past 15 years there were cases of encephalitis but of a different type from those during the war and the last six months here. It is not a sleeping sickness, nor lethargic encephalitis. The patient is good natured although seriously ill. The mortality is 50 per cent. There is diplopia in the early part of the affection, but it does not last long. The many types are due to phases occurring in different parts of the brain. Those seen by the speaker have not had influenza. Dr. Dirk spoke on the protean manifestations which were demonstrated in the County Hospital.

#### Hospital Standardization

By Dr. Dudley Fulton

Dr. Fulton said that by higher standards for medical colleges, one hundred and sixty odd colleges were eliminated. The standardization of hospitals is more complicated than that of medical colleges. There are some 4000 hospitals in the United States. There are fifteen organizations at work on this subject. California has received commendation of the A. M. A. The subject has been fostered by the League for Conservation of Public Health.

The first work was the survey of 460 hospitals. This section called it Hospital "Betterment" rather than "Standardization". Eight states ruled that before a graduate can practice he must have had one year in a standard hospital, likewise five years in medicine.

The survey is to show whether a hospital is properly built. The hospital should be educational for nurses and doctors. It should have community service as for nurses, etc. Complete histories of the patients must be the property of the hospital. These histories are the hospital's record and should be open to the entire staff. Laboratory work should be required. There should be three working or preoperative diagnoses



written in ink; also the prognosis and treatment of the case. A pathological diagnosis of every case written down with the final diagnosis and a comparison between the two. Follow-up results of treatment must be kept. A mistaken diagnosis is due to an inadequate examination of patient. Ignorance is the fault of improper medical education. There is inadequacy of medical knowledge of certain diseases. The records show whether good work was done. Group medicine should be practiced so that when the patient goes into the hospital, he may get proper treatment, i. e., medical or surgical. What per cent. of efficiency does the average patient get? If there were 100 per cent. there would be no culs. One of the greatest deficiencies is that laboratory and X-ray work is too expensive. It is omitted because the patient cannot afford it. The hospital group should get together 60 to 80 doctors, and 40 to 50 form the staff. The group doctors should have a conference twice monthly to review all cases. The greatest need of a hospital is free beds. People will not endow a dividend-paying institution. The hospitals are not now filling their mission. When the patients can get proper care, endowments will be plentiful.

#### Discussion.

Dr. Lobengier remarked that we ought to be thankful to Dr. Fulton. For 18 years the hospitals were commercialized. There is nothing more impressive than the fact that we cannot get endowments until hospitals are on a basis of altruism. Henry Frick gave \$8,000,000 to hospitals; this is altruism. Dr. Lobengier agreed with Dr. Fulton on the organization of a staff based on a business plane; the greatest good to the greatest number. We must not consider our own interests.

Dr. Duffield said that we'll never get anywhere as long as the hospitals are run by training schools.

#### Nursing Situation.

Dr. Wm. Duffield, chairman of the Committee on Nursing Survey reported that the committee had several meetings. For several years past there were not enough nurses due to various reasons such as higher requirements, etc. The difficulty is a general and not merely a local one.

The nurses now ask for 12 hours a day and the fee schedule is general nursing at \$5.00 per day of 12 hours, for contagious cases \$6.00, and for smallpox \$10.00.

Dr. Percy of Chicago—During the influenza epidemic, Dr. Percy said he recommended that a secondary class of nurses be supplied. Nurses usually only follow the occupation to get into the superintendents' places.

#### Los Angeles County Medical Association Meeting.

A special scientific meeting was held, Monday, March 22nd, at 9 P. M., in the Friday Morning Club House, instead of the third Thursday regular meeting.

Although it was a rainy evening the hall was crowded to its fullest capacity to hear the distinguished Dr. C. H. Mayo on "The Thyroid and its Diseases."

The president, Dr. Rae Smith, opened the meeting and Dr. Mayo gave an exhaustive review of the whole subject. Dr. Shoemaker, the secretary, and his assistant, Miss Gilman, had engaged a special stenographer to get an accurate and detailed account of Dr. C. H. Mayo's subject, but the president, Dr. Rae Smith, found that the report, because of omissions, etc., could not be used. We all regret the loss.

#### Southern California Society of Anesthetists

Regular Meeting, Tuesday, March 2, 8 P. M.

#### PROGRAM

1. Death during and following Anesthesia.—Frank D. Bullard, M. D.
2. Preliminary Medication.—George Piness, M. D.

Discussion opened by Dr. J. E. Vallee.

#### Eye and Ear Section of the Los Angeles County Medical Association

Regular Meeting, March 1st.

#### PROGRAM

- Dr. Henry Dietrich, Influenza in Children.  
Cases reported by Drs. Loeffler, Roberts, Sweet and Tholen.

#### The Innominate Society

Regular Meeting, March 10th.

#### PROGRAM

1. Encephalitis Lethargica, case report and necropsy findings. Drs. Norman Williams and Henry Snure.
2. Presentation of Orthopedic cases with lantern slide demonstration. Ellis Jones, M. D.

#### The Los Angeles Obstetrical Society

Regular Meeting, March 9th, 8:15.

#### PROGRAM

1. Dermatoses of New Born and Infants.—Moses Sholtz, M. D. (By invitation.)
2. The advantages of Internal Version with special reference to Dr. Potter's method of Version.—H. M. Murray, M. D.
3. Laboratory Findings in Pregnancy.—H. M. Rooney, M. D.

#### Eye and Ear Section of the Los Angeles County Medical Association.

Regular Meeting, April 5th, at 8 P. M.

#### PROGRAM

- Physiology of Vertigo.—Eugene R. Lewis, M. D., Philadelphia.  
Clinical Substance of Vertigo.—Isaac S. Jones, Philadelphia.

The Southern California Medical Society will have its Sixty-Second Regular Semi Annual Meeting in Redlands, California, Friday and Saturday, April 2nd and 3rd, 1920. Nichewang Hotel.

The officers are: Walter V. Brem, M. D., President, Los Angeles.

Charles L. Curtiss, M. D., First Vice-President, Redlands.

Carl W. Rand, M. D., Second Vice-President, Los Angeles.

William Duffield, M. D., Secretary-Treasurer, Los Angeles.

#### Committee on Arrangements.

E. W. Burke, M. D., Chairman, Redlands.

J. L. Avery, Redlands.

C. A. Sanborn, Redlands.

A fine long program has been arranged covering a big field of subjects by representative practitioners from all sections of Southern California.

#### Personals.

Dr. R. K. Macklin of Pasadena has returned from the Letterman General Hospital, San Francisco, where he was treated for injuries received during the Argonne drive. He went over the top with the soldiers and worked in the trenches. He was presented by his Pasadena brother physicians with a handsome automobile.

Dr. Evangeline Caven of Los Angeles planned the first baby show of Serbia. It took place in Chachak, 65 miles south of Belgrade. Dr. Caven instructed the mothers in bathing, feeding, dressing and weighing their infants.

Dr. Charles La Salle, Los Angeles pathologist, is sought by his wife who fears that he has become a victim of aphasia brought on by business troubles. He was last seen March 4th. During the war he was first lieutenant of the medical department of the marine corps and then resident pathologist at Patton and Norwalk State Hospitals.

**N. Y. Blizzard Injures Returned Soldier.**

Dr. George Louis Alexis Hamilton of Los Angeles who has just returned from Vladivostok as captain of the Red Cross, sustained in a New York blizzard three broken ribs and a bad sprain of his right arm.

**Dr. Margaret Farwell in England.**

Dr. Farwell of Los Angeles has become Mrs. Ramsden and is to reside in England. She is attending the Leeds University Clinics and the Batley Hospital, and is establishing a Baby Welfare Society. She expects to be admitted to practice in Leeds.

Mrs. Louis Lathrop Johnson, "Y. W." worker, wife of Dr. Milbank Johnson, died March 27th. Mrs. Johnson was well known for her philanthropic work and was a prominent member of the Y. W. C. A. Two daughters, Mrs. J. Brandon and Mrs. L. J. Webb, and a sister, Mrs. Robert Marsh, survive her.

Dr. Chester H. Bowers announces his association with Dr. Will Hastings in the practice of Diseases of the Ear, Nose and Throat, 924 Trust and Savings Bldg., Los Angeles.

**Los Angeles Municipal Drug Clinic.**

This clinic is now busy in the Temple Block. Dr. John W. Nevius has charge of the fifth municipal clinic in the U. S. New York, New Orleans, Memphis and San Diego are the other ones. Peddlers of "dope" ask \$1.00 a grain or about \$437.00 an ounce for morphine, cocaine, codeine, heroin. Cocaine derivatives they sell for \$110.00. At the clinic the drugs are sold for a few cents a grain when prescribed by the clinic physician.

Drs. Williams, Black and Mr. Luckenbach of the State Board of Pharmacists are on the advisory committee. There are about thirty to one hundred addicts applying every morning.

**Baby Hospitals.**

The "Anita M. Baldwin Hospital for Babies" will be built according to plans of architect Walter Webber. It will cost more than \$50,000. The purposes are: To provide a hospital for children and babies, for training of nurses in the care of children and babies, for the training of physicians and surgeons in pediatrics, for investigation and research, for maintenance and restoration of health of children and babies.

**U. S. C. Buys Medical College.**

The present site of the U. S. C. College of Physicians and Surgeons, 232 feet frontage on Washington street adjoining the Angelus Hospital, has been purchased for \$50,000. Dr. George F. Bovard, president, plans additional buildings including one for clinics, at a cost of \$100,000.

**ORANGE COUNTY**

The regular monthly April meeting of the Orange County Medical Society was held in the Santa Ana Library with a large number of members present.

The meeting place was very much overtaxed to accommodate the membership and it was decided to meet, in the future, in the chapel of the Orange County Hospital.

The proposed bill relating to medical practice and making it necessary that anesthetics be administered only by registered physicians was read and tabled.

The following officers were elected for the ensuing year: President, Dr. W. C. DuBois; Vice-President, Dr. J. H. Lang; Secretary, Dr. J. C. Crawford; Treasurer, Dr. A. R. Cushman; Librarian, Dr. C. D. Ball; Councilors, Drs. W. H. Wickett, C. C. Violet and J. Wehrley; Delegates to the State Society, Drs. H. M. Robertson and H. A. Johnston; Alternates, Drs. R. A. Cushman and W. C. DuBois.

The paper of the evening, entitled Nasal Sinusitis was read by Dr. H. D. Newkirk of Anaheim.

The paper brought forth a very interesting discussion and among many other things impressed upon the general practitioners the necessity for more frequent and more thorough nasal examinations.

The meeting adjourned to James' Cafe where a banquet was served.

**SACRAMENTO COUNTY**

The 52nd Annual Meeting of the Sacramento Society for Medical Improvement was held March 17th. This Society, the oldest in the State, was founded March 17th, 1868, and the annual meeting was fittingly celebrated by a dinner at the Del Paso Country Club.

Among the guests were Judge Peter J. Shields, Bishop Moreland, Senator Inman, Harry Maddox of the Chamber of Commerce, Mr. Chisholm of the Prison Reform Board of New York, and Doctors Huntington, Twitchell and Douglass Montgomery of San Francisco, the latter of whom presented a splendid paper on the subject of "The Treatment of Malignant Growths of the Skin by Radium and X-ray."

A special meeting of the Society was held March 23rd at the Hotel Sacramento, to elect a new staff for the Sacramento Hospital, to serve for the ensuing quarter; the following were elected: Surgery, Dr. E. T. Rulofson; Medicine, Dr. Scatena; Gynecology, Dr. Drysdale; Obstetrics, Dr. Kellogg; Genito-Urinary, Dr. Dahl; Eye, Ear, Nose and Throat, Dr. C. B. McKee.

The proposed campaign for subscriptions to a new Sisters Hospital has been abandoned, at least for the present.

The stock for the new \$400,000 White Hospital has nearly all been subscribed; the various committees for its management are formed; the architects are working on the plans, and if the necessary materials can be procured to assure rapid and thorough work, the new hospital will soon be in course of erection. It will occupy the site of the present hospital.

**SAN DIEGO.**

The County Society is grappling with the question of raising its fee schedule at its next meeting, Tuesday, April 13th. It would seem that this is a matter that eventually must demand attention of every physician whether from principle, a sense of equity, or from the actual and insistent demands of King H. C. L. This problem when supplemented with that of the Lay Anesthetist ought to furnish sufficient interest to satisfy all members and to pack the house. At all events the house of delegates at Santa Barbara will find the San Diego representatives fortified with no uncertain information on both these matters.

Last week a dozen of our members motored over to Redlands to attend the sessions of the Southern California Medical Society, which proved to be one of the largest and one of the most interesting gatherings that this live Society of the Southland has held. Two of the San Diego County members contributed papers at this conference. One by Dr. T. O. Burger on Reducing Mortality and Morbidity in Abdominal Condition; the other by Dr. J. F. Pedey on the treatment of cancer of the stomach with the actual cautery.

The many friends of Dr. Frank Bell will be glad to know that the doctor is rapidly recovering at his home.

The papers presented before the San Diego County Society during the past few months have shown careful preparation and familiarity with their subjects on the part of the essayists none too common in medical societies. As samples of the high order of the work presented may be cited the last two or three meetings. The meet-



ing of March 24th discussed an admirable informal presentation of "Our Responsibility in the Matter of Sex Education", by Dr. Martha Welpton; and a scholarly paper by Dr. H. F. Andrews on the "Psychopathology of the Uncured Patient." On March 19th Dr. Paul Wegfarth presented the result of original work during the war determining the effect of intravenous solutions upon the intracranial pressure. This work in conjunction with work of a similar character by other observers promises to give us a broader knowledge of some rather poorly understood physiologic problems. At the same meeting Dr. V. G. Clark presented a strong plea for the early recognition and treatment as a purely surgical condition, the pathologic prostate. This paper brought out an excellent discussion along the line of surgical procedure, and reminded one of the earlier days when medical societies were real arenas for combat.

#### SAN FRANCISCO COUNTY

During the month of March, 1920, the following meetings were held:

##### Tuesday, March 9—General Meeting

1. The etiology of nephritis.—Wm. Ophüls.
2. Methods of determining renal function.—W. C. Rappley.
3. The tests of renal function from the standpoint of the general practitioner.—S. H. Hurwitz.

##### Tuesday, March 16—Section on Surgery

Symposium on Fractures of the Lower Extremity.

1. Fracture about the ankle joint.—G. J. McChesney.
2. Fractures of the femur.—L. D. Prince.

##### Tuesday, March 23—Section on Eye, Ear, Nose and Throat.

1. Demonstration of cases.
2. Catarrhal deafness. Review of literature.—H. A. Fletcher.
3. Application of radium in ophthalmology.—F. C. Cordes.
4. Vasomotor disturbances of the nose with special reference to hay fever. Report from year 1919. Lantern slides.—Grant Selfridge.

##### Tuesday, March 30, Section on Urology

1. Prostatic backache.—A. Gottlieb.
2. Why kidney stones are missed radiologically.—C. W. Lippmann.

#### SAN LUIS OBISPO

Regular meeting San Luis Obispo Medical Society took place at Paso Robles Hotel Saturday evening, April 10, in the form of a ladies' night, that is the doctors and their wives sat down to dinner at 7:30. After a first class dinner the ladies adjourned to the parlor while the doctors went through the regular course of business. Communications were read from Dr. Eleanor C. Seymour representing the Los Angeles Anesthetist Society concerning Lay Anesthetists. On motion by Dr. Wilmar seconded by Dr. Love it was moved and carried that the San Luis Obispo Medical Society go on record as being opposed to Lay Anesthetists except in case of emergency.

Question of moving pictures of the different surgical procedures was discussed, and the secretary requested to take up same with the state secretary, and try to have a couple of reels for the meeting at Atascadero two months from now.

Transfer Dr. Waldo Richardson from the state of Washington voted on, and Dr. Richardson unanimously elected.

Communications from the American Medical Association gone over by the Society, and the necessary corrections made, and secretary instructed to mail at once.

Meeting adjourned at 10:30 to meet in San Luis Obispo in May, all members urged to go to Santa Barbara; great regret expressed at the few present at the meeting: in the absence of the president and vice-president, Dr. R. O. Dresser occupied the chair. Those present were Dr. and Mrs. O. B. Fossum, San Luis Obispo; Dr. and Mrs. C. A. Love, and Dr. and Mrs. Waldo Richardson, of Atascadero; Dr. and Mrs. R. O. Dresser; Miss Gertrude Roraback; Dr. A. H. Wilmar, and Dr. G. L. Sobey from Paso Robles.

#### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held in the Fountain Room of the Hotel Clark on Friday evening, March 12th, President C. F. English presiding. Those present were: Drs. C. F. English, L. Dozier, R. T. McGurk, L. Haight, H. C. Petersen, W. F. Priestly, B. F. Walker, F. J. Conzelman, W. C. Adams, Margaret Smythe, W. T. McNeil, J. W. Barnes, Mary Taylor, H. Q. Willis, C. D. Holliger, J. V. Craviotto, F. S. Marnell, N. E. Williamson, J. P. Martin, Minerva Goodman, D. F. Ray, J. S. Cochran, C. R. Harry, H. E. Sanderson, J. T. Davison, E. A. Arthur, B. J. Powell and D. R. Powell, and H. J. Bollinger and J. E. Nelson of Lodi, Dr. Robinson and Dr. G. G. Hawkins of Madera, Dr. Conway of Escalon, Dr. Zimmerman and Dr. Scholz of Sacramento, Dr. N. B. Gould of Ripon, and Dr. Walter C. Alvarez and Dr. Carl Hoag of San Francisco.

Dr. Dozier presented a case of osteo sarcoma of the leg which apparently had been cured by X-ray treatments and Colley's serum.

The first paper of the evening was given by Dr. Carl Hoag on the "Present Status of the Treatment of Goitre." The Doctor spoke of the importance of the Benedict Test of measuring basal metabolism. Under treatment the doctor spoke of medical treatment of rest and quiet with the administration of sedatives, all for the purpose of reducing metabolism. He also spoke of X-Ray treatment and of the method of injecting boiling water into the gland. However, he stated the method of choice was still that of surgery and spoke of the preliminary ligation of the external thyroid arteries and the removal of the gland about four months later. The doctor spoke of the recent development in the use of digitalis and strongly recommended the administration of one large dose, even as high as 15 c.c. instead of repeated small doses. The essential thing in the operative treatment was to obtain the confidence of the patient by a light anesthetic and the judicious use of morphine and sedatives and the use of a large dose of digitalis. The paper was discussed by Dr. Alvarez and by Dr. McGurk who reviewed the methods he had seen in the eastern institutions and strongly recommended the X-ray as he had observed it in Holmes Clinic in Boston.

The next paper of the evening was presented by Dr. Walter Alvarez on the "Remarkable New Method of Intra-abdominal Diagnosis." The doctor told of the method of injecting carbondioxide gas into the abdominal cavity to take X-ray pictures and of the results secured by obtaining different densities. Very remarkable plates were produced in which the viscera could be clearly defined. The doctor showed on the lantern screen many of the plates taken by this method showing how nicely internal organs could be outlined and various pathological conditions diagnosed from the pictures. The paper was discussed by Dr. Zimmerman, X-ray specialist of Sacramento and by several others present.

The meeting adjourned to enjoy a social hour and light refreshments.

## SONOMA COUNTY

At the April Meeting of our society we listened to a very instructive and humorous talk on constipation by our genial state secretary, Dr. Saxton Pope.

The society also went on record in favor of the limitation of the practice of Anesthesia to regularly licensed physicians and surgeons.

### TWENTY-EIGHTH SEMI-ANNUAL MEETING.

The Twenty-eighth Semi-Annual Meeting of the Northern District Medical Society was called to order March 9th, 1920, at 11 a. m., in the Elks Hall, Chico, by Dr. Barnard, President.

Dr. Harold Zimmerman demonstrated X-ray plates, diagnosing eleven obscure cases. Discussed by Dr. Bollinger and by Dr. Peers, who reported an excellent diagnosis by Dr. Zimmerman of a small bone in one of the bronchioles.

Dr. Frank Reardon took up in detail the complications he had met in Post-Influenzal cases of the epidemics of 1918 and 1920. Dr. Gundrum in discussion gave a brief history of the epidemics of Influenza. All agreed that the causative organism was unknown and the only treatment was stimulation, except Dr. Parkinson who sharply objected to the value of whisky.

Dr. Peers' paper plainly showed the value of a full routine history of suspected Tubercular cases.

Dr. A. K. Dunlap read a paper on "Dislocation and Fracture of the Carpal Bones," and Dr. J. B. Harris reported a case of Dislocation of the Semilunar Bone with a failure by closed methods and successful function after removal of the Semilunar.

The State Indemnity Fund, discussed by Dr. Parkinson, brought only adverse criticism by Drs. Dameron and Barr.

Dr. Hale's paper on "Hydronephrosis" was fully illustrated by lantern slides of cases which he had handled.

Dr. Schoff read a paper on the value of Radium and illustrated his excellent results by photographs.

Dr. Dameron reported cases of primary Tumors obstructing the large bowel and pleaded for a simple ceco-sigmoidostomy and no resection, as during the last eight years his patients have lived, whereas formerly following big resections they all died.

Dr. Enloe reported three cases all of which survived the operation but died from later Metastases.

Dr. Dewey Powell showed that Vincent's Angina was much more common than thought, due to the failure to make smears of all membranes. He reported Fowler's solution applied after the removal of the membrane as practically a specific.

Our guest, Dr. Stanley Stillman, gave a most excellent and practical paper on the "Post-operative Management of Abdominal Cases." A few of the points brought out were as follows:

Shock-prevention by limiting all abdominal assaults to less than one hour; uses Adrenalin and warm blankets. Mild Catharsis 36 hours before operation; enemas after. Vomiting-routine stomach lavage; if persist after peristalsis indicates post-operation obstruction.

Post-operative: Restrict Opium. Acute dilatation characterized by recurrent vomitings of small amounts of dark fluid. Prompt lavage and repeat two hourly. As no absorption from stomach, no water until peristalsis, which is shown by Stethoscope. Meanwhile water by rectum 6 to 8 ounces every 4 or 5 hours in preference to drip method.

Gas pains friction raw surface bowel against bowel or peritoneum. If adhesions desired give Opium. No Catheterization of conscious patients. Paralytic ileus—has found Pituitrin of no use. Drains—only if walled off abscesses. Remove drains slowly and use the true Fowler's position. In diffuse peritonitis sew up tight.

Stomach cases: Immediate Fowler's; fluid started when peristalsis. Infants wrap in cotton—kept on table in warmed blankets; feed early post-operative.

Discussion by Drs. Gundrum, Fairchild and Dameron. Dr. Dameron reported his results of the last 12 years during which he has immediately tightly closed all abdomens.

New members admitted were: H. Bolinger, J. E. Nelson, Lodi; C. E. Schoff, F. Reardon, N. G. Hall, Sacramento; C. S. Durand, Colfax; Mary B. Poket, Tehama; Ida A. Beck, Gridley; P. B. Hoffman, Marysville; P. L. Hamilton, E. E. Baumeister, F. L. Meyers, Chico.

The meeting was fully attended, the papers instructive and well illustrated, and all who attended profited thereby. A most elegant banquet served at the Hotel Oaks and accompanied by excellent music made all wish that the meetings at Chico were more frequent.

## Notice

Dr. W. W. Fraser of Richmond, Cal., reports the theft of a B. & L. microscope from his office recently. If such a microscope is offered for sale to any doctor, he is requested to investigate ownership.

## The Reason Why Twelve Patients Entered the Sanatorium Too Late

BY ROBERT A. PEERS, M. D., Colfax.

Note: The following article is so good and so worthy of attention from physicians, that it is reprinted from "The Tea Bee," February, 1920.

Number one thought his cough was "bronchial." He was sure it could not be due to tuberculosis as "There was no consumption in his family." So he tried to "wear it out." When he himself was worn out and consented to enter a sanatorium it was too late.

Number two knew that his chills and fever were due to malaria. The cough he said was "only the cough that goes with malaria." So he took "Mother Skinnem's Chill Tonic" and the tubercle bacillus worked while he slept. Later he slept with his fathers.

Number three thought his cold and malaise due to mental error. Some kind deluded friend told him there were no such things as germs or disease and that what he believed to be a cough and fever were really only evidence of the failure to think properly and while he wasted his substance on mental healing and un-Christian non-science the germs which he thought so absurd put in overtime at double-pay. The sanatorium could not help him when he at last discovered the truth and now his mental errors are covered by six feet of earth.

Number four was told that the pain in his side and the tired feeling were due to "a bone out of place in the back." He was told that this could be rubbed back into place and that then he would be all right. He wasted several months on back rubbing and entered the sanatorium just too late to be helped.



Number five went to a careless doctor. The doctor was in a hurry that day in order to get to his Golf Club and so he gave the patient a prescription for a cough medicine and told him to come around in a couple of weeks if he didn't feel better. Number five took three or four bottles of the medicine, getting the bottle refilled without consulting the doctor. When he did go back and the doctor had time to examine him thoroughly it was too late and the sanatorium could not help him.

Number six went to a "busy" doctor. Many patients filled the office. The doctor gave him two minutes and told him he was all right and needed only a tonic and a few weeks in the mountains where he could rough it. He listened to his chest without removing his clothing, wrote a prescription and sent him away with advice to take plenty of exercise. He did and by the time that he reached a physician who stripped off his clothing before examining him and who had sense enough to tell him that rest in bed is the treatment for tuberculosis he was too far advanced for the sanatorium.

Number seven went to a tender hearted (?) doctor who could not bear to tell his patient he had tuberculosis for fear it might frighten him. The doctor told him he had bronchitis and advised him to rest in bed, take milk and eggs and get plenty of fresh air. But the patient thought "If I have nothing but bronchitis, I should worry" and promptly decided not to rest but rather to go on with his work and when he became so ill that his true condition could not be kept from him it was too late to help him.

Number eight went to a doctor who had great faith in drugs and but little knowledge of the wonderful reconstructive power of rest in bed. Therefore he gave his patient a tonic, a cough medicine and a bottle of pills and had him come to his office for a hypodermic treatment twice a week. But he failed to take his temperature and did not know that what the patient needed was rest in bed until his acute symptoms were gone. And when the patient learned that he should go to bed as well as take medicine the time for cure had passed.

Number nine had just passed an examination for life insurance a few weeks before a doctor looked him over because of a chronic cough and a tired feeling. Therefore he didn't believe the doctor when he said he had tuberculosis but hunted up another doctor who told him he was only a little run down and had "catarrh" and that if he had his tonsils out he would be all right. But the operation for removal of his tonsils caused an acute extension of his disease from which he never recovered.

Number ten noticed that he tired easily and that he was losing weight. He also worried over a slight cough which troubled him in the morning. He was afraid he might have tuberculosis because a brother had died of that disease a few years earlier. He thought all patients with tuberculosis died, was afraid to go to a doctor for fear the doctor would tell him he had that disease. And so he hid his troubles until it was too late.

Number eleven was told he had tuberculosis and could be cured but he was getting along well in business and felt that he must really stay and look after his interests for another three months. He said his tuberculosis came at just the worst possible time as he had so many things to attend

to he really couldn't afford to go to a sanatorium; so he put off going until he felt he could leave his business and when he left he left for good.

Number twelve was a hard working mother with a large family of children. She had so many things to do that she didn't have time to be sick. Besides she was expecting that soon there would be another little hungry mouth to fill and she thought her tired feeling due to overwork, which it was, except that the toxins of tuberculosis helped make her more tired than usual. And so she kept on and would not give up or seek medical care until she was almost ready to go to bed forever and the sanatorium could not help her. And her case was the saddest of all because she didn't have half a chance.

## For Discharged Soldiers

A discharged soldier can receive treatment at the hands of the Public Health Service, to which he is entitled as a beneficiary of the Bureau of War Risk Insurance, through one of a number of channels.

(1) He can apply directly to the examiner of the Public Health Service in his locality presenting evidence in the form of an honorable discharge of his right to such treatment. He will at once be examined, treated, and provision made for hospital care should such be necessary. The examiner will also instruct and aid him in making out the necessary forms to be forwarded the War Risk Insurance Bureau, and also the necessary application to be made in order to become a claimant of the Federal Board for Vocational Education.

(2) The discharged soldier can apply to the Bureau of War Risk Insurance by letter requesting examination and treatment as its beneficiary. The War Risk Insurance Bureau then notifies the District Supervisor of this request who in turn notifies the patient to report to an examiner, giving the examiner's name and address, and issuing him transportation if travel is necessary to carry out the request. Upon presenting himself to the examiner, he is cared for in the above manner.

(3) The discharged soldier can apply to the American Red Cross, American Legion, to his county or State Board of Health, or to other organizations interested in his welfare, who through the publicity of the War Risk Insurance Bureau and the Public Health Service, will either direct him to the nearest examiner of the Public Health Service or will take up his case with the Public Health Service of the district in which he resides, who proceeds at once to notify the patient to report for examination, as indicated under (2).

The examiner is authorized to obtain the advice and services of consultants for a patient, should such be necessary, and if hospital care is deemed advisable, to place him in the hospital upon the direction of the District Supervisor, either locally if his case can be cared for locally, or in a hospital unit where the services of special consultants can be obtained. Upon the discharge of a patient from the hospital, a report of physical examination is submitted to the District Medical officer of the Federal Board for Vocational Education, and the patient is notified of his rights as a claimant of that Board for training, and as he ceases to be a patient of the Public Health Service, his case is turned over to the Federal Board for further disposition.

## New Members

Seeburt, Emery M., San Francisco.  
 Lynch, Eugene H., San Francisco.  
 Culver, Blanche, San Francisco.  
 Du Bray, Ernest, San Francisco.  
 Glover, Mary E., San Francisco.  
 Harris, Mary W., San Francisco.  
 Olsen, Sidney, San Francisco.  
 Spriggs, Gertrude A., San Francisco.  
 Nielsen, John W., Colfax.  
 Barton, O. L., Loomis.  
 Saunders, Clark E., San Jose.  
 Durgin, Rubie M., Berkeley.  
 Scudder, J. Hedley, Oakland.  
 Dutton, May L., Oakland.  
 Ashmore, Frank, Buena Park.  
 Lane, C. R., Santa Ana.  
 Newkirk, D. H., Anaheim.  
 Westphal, Henry G., Glendale.  
 Dye, W. G., Los Angeles.  
 Swim, Wm. A., Los Angeles.  
 Yale, A. E. W., Burbark.  
 Comstock, Belle W., Los Angeles.  
 Gilmard, C. R., Los Angeles.  
 Beggs, James H., Los Angeles.  
 Davey, R. W., Los Angeles.  
 Allen, Carlton S., Los Angeles.  
 Berkley, Hugh K., Los Angeles.  
 Pratt, Thos. R., Los Angeles.  
 Pyles, Richard H., Los Angeles.  
 Larson, Edwin, Los Angeles.  
 Ingalls, Albert T., Los Angeles.  
 Wood, C. Benson, Los Angeles.  
 Chesman, Frank N., Los Angeles.  
 Ward, Benjamin B., San Fernando.  
 Dashiell, Wm. A., Los Angeles.  
 Hodgkinson, W. A., Santa Monica.  
 Guernsey, P. F., Los Angeles.  
 Trew, Niel C., Los Angeles.  
 Stone, Willard J., Pasadena.  
 Levengood, H. Wilson, Ocean Park.  
 Morrison, H. E., Sacramento.  
 Hanan, Wm. J., Sacramento.  
 Norman, J. G., Oxnard.  
 Smith, C. L., Santa Paula.  
 Lupton, E. L., Sebastopol.  
 Potter, Wm. H., San Diego.  
 Kinsley, Wm. I., San Diego.  
 Ashcroft, Felix E., Chula Vista.  
 Finley, Walter G., San Diego.  
 Kylberg, H., Merced Falls.  
 De Loss, Herbert, Merced.  
 Castle, Curtiss H., Merced.  
 Kahl, Chas. W., Merced.  
 Adams, C. W., Visalia.  
 Zumwalt, E. R., Tulare.  
 Gelston, C. F., San Francisco.  
 Read, J. Marion, San Francisco.  
 Michelson, Lewis, San Francisco.  
 Leiva, Carlos, San Francisco.  
 Shoemaker, H. R. D., San Francisco.  
 Lorentzen, K. G., San Francisco.  
 McCarthy, C. F., San Francisco.  
 Giovannetti, R. P., San Francisco.  
 Kell, Fred P., San Bernardino.  
 Prince, R. W., San Bernardino.  
 Hench, J. M., Stockton.  
 Lynch, W. P., Stockton.  
 Wharton, Charles G., Los Angeles.  
 Sink, Wm. D., Guadalupe.  
 Mellinger, Wm., Santa Barbara.  
 Cunningham, Benj. F., Santa Barbara.  
 Smith, E. D., Los Olivos.  
 Schurmeier, H. S., Santa Barbara.  
 Goetz, Alice L., Santa Barbara.

Allen, Albert, Taft.  
 Owen, W. H., Bakersfield.  
 Emundsen, J. D., Orland.  
 Avery, Walter J., Fresno.  
 Nielsen, Harold W., Fresno.  
 Matten, Thos., Sanger.  
 Rees, John T., Del Rey.  
 Traber, C. H., Reedley.  
 Sheldon, F. B., Fresno.  
 Bell, T. Floyd, Fresno.  
 Divanovich, David, Fresno.  
 Poole, R. E., Durham.  
 Johnson, W. B., Chico.  
 Schell, J. P., Chico.  
 Luckie, L. F., Fresno.  
 Myers, O. R., Belden.  
 Kelker, G. D., San Francisco.  
 Bramkamp, A. L., Banning.  
 Camp, J. W., Blythe.  
 Card, Thos. A., Riverside.  
 Shank, C. E., Corona.  
 Chesbro, Elmer I., Gilroy.  
 Merrill, W. I., Campbell.  
 Sanders, A. O., San Jose.  
 Whiffen, R. A., San Jose.  
 Van Meter, J. N., Fresno.  
 Cox, Edward R., Fresno.  
 Hare, Harold P., Fresno.  
 Geraldson, Lena A., Napa.  
 Richards, S. B., Victorville.  
 Thurlow, Alfred A., Eldridge.  
 Reed, J. Wilson, Newman.  
 Brace, R. W., Ripon.  
 Maxwell, R. E., Modesto.  
 McPheeters, E. R., Modesto.  
 Collins, James L., Turlock.  
 Sturges, R. L., Modesto.  
 Krout, Boyd M., Oakland.  
 Everingham, Sumner, Oakland.  
 Booth, John R., Oakland.  
 Cheney, Marshall C., Berkeley.  
 Fenton, Susan J., Oakland.  
 King, H. R., Winters.  
 Parsons, James E., Dixon.  
 Bull, E. C., San Francisco.  
 Pollia, Joseph A., San Francisco.  
 Cohn, Allan L., San Francisco.  
 Scosseria, E., San Francisco.  
 Rea, Bernard J., San Francisco.  
 Muller, Vinton A., San Francisco.  
 Abramopoulos, C. A., San Francisco.  
 Freytag, C. L., San Francisco.  
 Love, C. A., Atascadero.  
 Magee, Irvin L., Venice.  
 Hill, Earl W., Blue Lake.  
 Tweedie, A. M., Los Angeles.  
 Lokrantz, Swen, Los Angeles.  
 Canney, Frederic G., San Francisco.  
 Hornor, D. H., Dunsmuir.  
 Beck, H. H., Montague.

## Resigned

MacBean, Anna M., Los Angeles.

## Transferred

Gregory, L. C., from Mendocino Co. to Contra Costa Co.  
 Aller, Daniel I., from Merced Co. to Fresno Co.  
 Holmes, W. H., from Los Angeles Co. to Riverside Co.  
 Wintermute, C. E., from Tulare Co. to Santa Clara Co.  
 Hennemuth, J. E., from San Joaquin Co. to Stanislaus Co.  
 McManus, Frank P., from Contra Costa Co. to Yolo Co.  
 Heaney, Robt. H., from San Francisco Co. to Siskiyou Co.





## Obituary

### Henry W. Horn, San Francisco.

Lieutenant Colonel Henry W. Horn, B. A. M. D. B. S., died in San Francisco March 5, 1920, at the age of 49 years.

He was the son of Thomas Horn, a California Pioneer and member of the Vigilance Committee, and Helen Wells Horn. He was born in San Francisco, and received his Bachelor's degree from the University of California where he was a member of the Sigma Chi Fraternity. He graduated in medicine in 1897 from the Cooper Medical College and spent four years as Assistant Professor of Otology in the University of Bonn, Germany, from which he received the degree of Bachelor of Science. He studied speech defects in the Ambulatory Division in the University of Berlin for a year and spent another year in Vienna in clinical work and the study of the inner ear under Barany laying there the foundation of the work with which he was engaged while in military service.

As a physician he enjoyed a large practice and had risen to an enviable position in the eyes of the medical world through his untiring energy, as a teacher in the University of California Medical School and through his numerous contributions to medical literature which marked him as a man of independent thought in the world of research. Among his last efforts in this field were important contributions upon the subject of ozoena.

At the outbreak of the war and shortly after his marriage to Miss Ella Gardner of Los Angeles, he volunteered his service to the Government and entered the Medical Corps of the Army as lieutenant. He returned from France in 1919 and received his discharge from the Army after two years of meritorious service with the rank of lieutenant-colonel. Unfortunately, he contracted influenza during the epidemic at the end of 1918 in France from which time he never recovered his health and died about a year later.

To him, as well as to those who died upon the field of honor, is due the honor given those who have sacrificed all for their country in its hour of need and his memory will live in the hearts of those who knew him and knew his worth—a man who lived fearlessly, worked fearlessly and died fearlessly, and added more than his share to the sum of human effort.

The value of his work during the War is best shown by the following tribute written by his Commanding Officer, Lt. Col. Isaac H. Jones of the Medical Corp of the Army:

"The Air Service Medical, U. S. A., came to include over 1500 medical officers and many thousands enlisted personnel. Lt. Col. Henry Horn was one of the original five who organized this service and developed it from nothing to a larger organization than the entire medical corps before the War. To those who did not understand Aviation problems it was difficult to see the need of any such organization at all; Col. Horn devoted the last three years of his life entirely to these special studies and was one of the most enthusiastic believers in the need of medical experts to control the mental and physical fitness of fliers.

At the very beginning of the U. S. effort, Horn accepted the commission of Lieutenant, although we all know how many younger and less able men "held out for higher ranks." The aviation service scarcely even existed at that time; thousands of the finest youngsters in the country were clamoring to be admitted to a service that hardly had an existence. Lt. Horn proceeded at once to San Francisco and organized a Physical Examining Unit, which was one of the first—eventually there were 67 such units. He aroused a great interest in Aviation along the Pacific Coast—not only among applicants but in the Medical Profession and he was in that way responsible for bringing many medical men into the service.

He then was called to the Medical Research Laboratory at Mineola, Long Island, and his most valuable work there was the study of deafmutes in actual flight; this was the first work of its kind ever done and to this date there is no such comprehensive study in the world on this subject. He then went overseas as the head of the Otological Department of the Air Service Medical group. His report of otologic work overseas "The Role of the Labyrinth in Flying Efficiency" (Annals of Otology, June, 1919) is the best and most conservative up-to-date exposition of this new subject.

The many hundred physicians who knew Horn were impressed with his unlimited capacity for hard work—he seemed tireless. It was this devotion to his work above all that caused him to be admired by the Medical Profession. He had an almost ruthless disregard for "what sort of an impression he would make"—it was this rugged manliness that endeared him so to his fellow-workers.

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## Deaths

YEMANS, HERBERT WM.—A graduate of Detroit Medical College 1878. Licensed in California 1887. Died in Fort Rosecrans, Cal., January 29, 1920. Deceased was a major in the Marine Corps, U. S. A.

VAN NORMAN, WM. J.—A graduate of Cleveland College Homeo. Hospital, Ohio, 1898. Licensed in California 1900. Died in Los Angeles March 28, 1920.

# California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVIII

JUNE, 1920

No. 6

## THE SANTA BARBARA MEETING.

Nearly six hundred in attendance, wonderful weather, an uncommon feeling of fellowship and of union in a common cause, these were among the factors which made the 47th annual session of the Medical Society of the State of California, at Santa Barbara, May 11-13, the best and the most fruitful in the history of the Society. The program was unusually strong. The absence of long discursive papers, the snappy, short addresses by men who knew their subjects, all contributed to unusual scientific value. Dr. John H. Graves of San Francisco was elected president-elect, Dr. John C. Yates of San Diego assumed the office of president, Dr. William Duffield of Los Angeles was elected first vice-president, Dr. Joseph Catton of San Francisco was elected second vice-president, and Dr. Saxton T. Pope of San Francisco was re-elected secretary. It was decided that the session of 1921 should be held in San Diego. President Yates certainly is bringing home the bacon. And if those not in attendance this year will profit by the advice and experience of their more fortunate brethren, they will all unite next year in San Diego, for these sessions are becoming of great and enduring value and no doctor can afford to miss them.

At Santa Barbara, at the Ambassador Hotel, it was startling, to say the least, to note that departed spirits seemed to lurk where the doctors congregated, and of all sections, it was most surprising that the Section on Industrial Medicine should have chosen the bar-room for its convocations. Communion with the departed spirits, however, did not hinder the presentation of papers of rare interest. Another unexplained fact is that the Section on Obstetrics and Gynecology met in the Moorish Room, the Section on Neurology and Psychiatry in the Music Room, and finally and above all, that the staid and dignified Council

elected to hold its sittings in the Kindergarten. They did, because the editor saw them do it—at a distance, and noted the toys, playthings and juvenile furniture.

It was a step in advance that the Program Committee required each paper before presentation, to be deposited with the secretary of the section. Attention is called, also, to the fact that all papers read at this session will not be published in the Journal. The Council has authorized the editor to return to the writers such papers as, because of length, or too technical content, do not seem adapted for the pages of the Journal. Such papers will be returned promptly to their writers in order that they may receive early publication in more technical journals.

In the July issue of the Journal will appear the minutes of the House of Delegates. In spite of the excessive pressure on the columns of the Journal, it is intended to publish the papers from the Santa Barbara meeting in the succeeding issues of the Journal to the virtual exclusion of original papers from other sources. The editor is forced, much against his will, to return many current papers submitted because of lack of space. The necessity for doubling the size of the Journal is apparent and it is hoped that this needed increase may soon be possible.

## "BETTER HEALTH."

At last the long-looked-for day has arrived when the medical profession has available a medium for direct interpretation to the public, in readable, understandable form, of the facts and results of modern scientific medicine. What doctor has not lamented the lack of such a medium? What doctor but has wished time and time again for some way in which medical lore and scientific data could be carried accurately and with authority to the public? "Better Health" supplies this need



and the initial issue which is just off the press is just cause for rejoicing and pride on the part of the entire medical fraternity. It goes without saying that every doctor must be a subscriber. It will be equally apparent to every doctor, as he reads this first issue, that this magazine must be put on a subscription basis in the hands of every one of his patients and friends. Have a copy or copies always on the table in your reception room. Get subscriptions from all your friends and patients. It is only a dollar a year and its value cannot be measured in money. It is the organ of the League for the Conservation of Public Health, and its editor is Mr. Celestine J. Sullivan, the executive secretary of that organization. The League is here to stay. It has demonstrated its worth. It is very much alive. *It is in the fight.* It will win the fight. What fight? The only fight in which the doctor as a doctor is vitally interested. The fight for better and best health for every member of the body politic of these United States, starting in our own California.

Volume One, Number One, of "Better Health" is full of good things. For instance, on page 46 is found the following, which doctors already realize: "Defeat faces four measures. This is campaign year, and all good citizens are interested in getting accurate information on the men and measures that will be voted on at the general election, November 2, 1920. Among others, there are four measures upon which the League has already assembled sufficient reliable data, to warrant us in recommending their defeat. The first is the initiative which the anti-vivisectionists are placing on the ballot. The second is a constitutional amendment offered by an alleged Public School Protective League. The third is the chiropractic initiative, which proposes to create a separate board of examiners for chiropractors. The fourth is a referendum invoked by certain osteopaths upon Senate Bill No. 604. In coming issues of 'Better Health' the pernicious character of several of these measures will be pointed out and reasons offered why all of them should be defeated. All of these questions are health questions and very appropriately will be discussed and decided by the people; for who should be more interested in the health of the people than the people themselves? The verdict of the people will be correct if the people have correct information. 'Better Health' will present the facts."

#### NEW MINIMUM FEES FOR INDUSTRIAL ACCIDENT WORK.

At the meeting of the House of Delegates May 11th, at Santa Barbara, the report of the Committee of the Council on Industrial Accident Work was adopted. Full report of the committee will be published in the July issue of the Journal.

This is the result of a prolonged effort on the part of the Council to get more equitable fees for Industrial Accident cases. The State Society has never gone on record as accepting any fee schedule in this sort of work, and it is well recognized that the remuneration heretofore offered has been entirely inadequate. We have now offi-

cially accepted the standard of fees which have been agreed to by the Industrial Accident Commission and the carriers throughout the state. This is not a final adjustment. It is but the beginning of a graduated scale of compensation for surgical services, and it will be changed from time to time as conditions warrant. It is, however, a start in the right direction.

We wish to direct your attention to this schedule as accepted by the House of Delegates and which we print on pages 237 and 238 of the Journal. It should be read carefully with the explanatory notes. The figures given are the minimum or basal charges. It will go into effect June 1st, and all bills rendered for services after this date should be figured on this basis.

The State Medical Society also has devised new and simplified blanks which all carriers have agreed to accept. In the course of time these will be sent out and be the standard blanks for our members who do this sort of work. It will lessen the clerical waste which hitherto has marked this type of case.

Many physicians will be disappointed with the 25% increase in the fee schedule as offered, and will think that a 100% increase will be none too much. But we must remind you that there are men ready to take this work even on the old basis and by giving services in a wholesale way can still run it as a paying business. The present advance is intended to compensate the average physician who does industrial work, and it should be the part of the State Medical Society to endeavor to raise the standard of services rendered and to prevent commercialism gaining control, and thus in the end give better care to the injured employee.

#### DOCTORS TO DEFEAT "OUACK" SOLONS.

Under this appropriate headline the San Francisco Examiner for May 19, 1920, says as follows: "Come all ye little legislators and listen unto me! The doctor man will get you if you don't watch out. The doctors of California are organized into the strongest medical association in this country—a model organization that other states are beginning to imitate. The big pill doctors and the little pill doctors have joined hands. More than 3,000 of them are in the 'League for the Conservation of Public Health.' All the leading men of the regular healing profession are in it. The League publishes a magazine called 'Better Health.' In its most recent issue 'Better Health' says: 'Watch the next legislature. League will oppose candidates hostile to scientific medicine. We are watchfully waiting for all the candidates to appear. Before we can watch the legislature it must be chosen, and all of us have the duty and privilege of making the choice.' OMINOUS PARAGRAPH. Then follows the list of the twenty senators and eighty assemblymen whose terms expire this year and whose successors are to be chosen in November. After the list comes the following significant paragraph: 'The record of some of these does not justify the belief that they have a true conception of their duty to the interests of the whole state. In its issue of July, 1919, THE CALIFORNIA STATE

JOURNAL OF MEDICINE in an article entitled, 'The Roll-Call and Its Results, devotes several pages to an accurate analysis of the attitude of the various members of the 43rd session on important health measures. By reviewing that article and refreshing your memory, you will be able to decide which members are entitled to re-election.' Naturally I looked up that CALIFORNIA STATE JOURNAL OF MEDICINE for July, 1919," says the editor of the Examiner, "and this is how I found the legislators listed in the minds of the doctors." Then he repeats the contents of the Journal article noted. Doctors should join the editor of the Examiner in looking up that article and refreshing their memories.

For the doctors know, *you know*, that the doctors intend to, and will, defeat what the Examiner rightly calls "Quack solons." It is time that the public realized the facts in the case. That realization is increasing and there can be but one result. Down with the quack solons. As the Examiner says, "the seekers after legislative honors must step lively to keep from being caught in the crush." The doctors are no longer on the defensive. Their interests are identical with the people's interests. The doctors' interests are identical with the interests of public health. The few "conscientious objectors" did not win the Great War. Neither did they prevent the war from being won. The few antis, and half-baked uneducated healers, do not make, benefit or desire public health, neither will they prevent public health from being improved and maintained by the enlightened public of California and the medical profession of California.

#### HUBLEY AND BROOKS GO ON FOREVER

E. C. Hubley, an unlicensed chiropractor, is reported by Harry Ellington Brooks in the "Times," one of the Los Angeles newspapers, that he will practice his "profession" as long as he lives without the consent or approval of an imaginary Medical Trust. This mythical Medical Trust that seems to worry the "Times" babbling Brooks, we presume is the Board of Medical Examiners established and empowered by the State of California.

The "Times" is prating about law and order in season and out of season, and yet we find this sheet encouraging the defiance of the law by some chiropractors and cults. Judge Richardson of Los Angeles recently suspended a 180-day jail sentence incurred by Hubley for violating the Medical Practice Act, on the condition that Hubley refrain from practicing until he secured a license from the State of California to practice in this state.

In its ardent zeal for law and order does the "Times" exclude those laws established to regulate the examination of applicants for license and the practice of those licensed to treat diseases, injuries, deformities or other physical or mental conditions of human beings?

The purpose of these laws is not to create a medical monopoly but to promote and protect the public health. The legal profession is surrounded with certain safeguards to protect the people from

incompetents and imposters. Will the "Times" say that property and the pocket-book are more precious than the health of the people? Or does the "Times" advocate allowing anyone to practice law without any examination to determine mental or moral qualifications?

No one can claim a greater right to practice medicine and surgery, to diagnose and treat diseases without complying with the law, than to practice law without observing the established conditions. The peril to the public from an unqualified man who would attempt unlawfully to practice law would be infinitesimal in comparison to an unqualified man who attempts to practice on the lives of the people.

The privilege to practice will be granted to Hubley and all other applicants that are willing and able to comply with the laws of California. As is pointed out in another section of the "Journal" any chiropractor that is half-educated can get a license.

#### THE ROLE OF THE PHYSICIAN IN INDUSTRIAL MEDICINE.

Volumes could be, and are, written on the role of the medical profession in modern industry. The average doctor can be reminded with advantage from time to time of some of these fundamental relationships. Employers need the physician because they are coming to recognize that employees must be kept well, that preventable hazards must be abolished, that the employee must be shielded from necessary hazards, that the disabled employee must be returned to work skilfully and quickly, and that the large group of physically abnormal employees must be given work adapted to their capabilities. All of this is the function of industrial medicine. These objects of the employer can be achieved only through the medium of the physician. The industrial physician has not yet come into his own. All too often he is still a mere adjunct to a "welfare department" under lay supervision. But the new highly trained type of industrial physician will see his strategic relationship to employer and employed, and will receive recognition from both for the really indispensable part he plays in modern industry. The doctor has been accused, and justly, of being an individualist. He must, perforce, now get for himself a community point of view, a social regard for social groups, a recognition that his profession places him at the logical point of common interest between employer and employed. The doctor as an individualist must give way to the doctor with a sense of social responsibility.

#### THE LAY ANESTHETIST

The question of the lay anesthetist has assumed considerable importance in recent times. The fact that trained nurses are employed to give anesthetics in surgery demonstrates that a new issue has arisen. It bids fair to develop a schism in the practice of medicine, and the creation of a new cult. Goodness knows! we have too many of these already.



The nurse anesthetist is often a very good anesthetist. She is readily accessible and is at present, cheap labor and a source of profit to the hospital. With all her acquired skill she cannot know all that is proper for an anesthetist to know, because she lacks the fundamental medical education.

Anesthesia is a very important part of an operation; often the most important. Why should it be turned over to an under-trained person? No educational requirement is too high that protects human life. It is absolutely essential to experimental research that certain graduates in medicine should specialize in anesthetics. This branch of medicine must be fostered and developed. It can only be done by fully equipped minds.

Women physicians make ideal anesthetists because they are faithful, conscientious, careful by nature. They do not aspire to become operative surgeons, and they pay strict attention to the patient. They should be encouraged to take up this specialty. As evidence of the sentiment of the physicians of California, the following is a resolution passed by the House of Delegates of the Medical Society of the State of California:

WHEREAS, The administration of an anesthetic is always the function of a legally qualified medical practitioner; and

WHEREAS, The administration is best performed by physicians specially trained or who have made a specialty of this subject; therefore, be it

RESOLVED, That, wherever available, hospitals and public institutions, where anesthetics are administered, should employ only physicians as anesthetists; be it further

RESOLVED, That the Society condemns, under all circumstances, the training and qualification of lay persons as anesthetists; be it further

RESOLVED, That "no hospital shall be deemed to have acceptable standards" which charges a fee for an anesthetic unless such anesthetic has been administered by a legally qualified physician.

## Editorial Comment

And authorities tell us that often, even usually, anti-vivisectionists are sadists, reacting to repression, but still bound to obtain what perverted satisfaction they can.

Now comes one, George S. Weger, with an inchoate grouch against the medical profession, of which, we surmise, he is a misrepresentative member. The nature of his remarks suggests that "Weger bored" should be spelled "Ouija board."

The illegitimate child may be born beyond the pale of society's sanction. It is not, however, born beyond the pale of nature's sanction. From the standpoint of biology as well as of simple justice, it is entitled to the same rights of life, growth and protection as its more legal half-brothers. Legal sophistries and social intolerance must give way to justice and decent health protection.

The public and the medical profession are sick and weary of the exorbitant price of milk. "Feed the Children First" is a good slogan, and general indignation is rising against the milk barons, who like Ruskin's bag barons, and the crag barons of old, make the people stand and deliver, in this case at the expense of the children. "Feed the Children First" and feed them with clean, cheap milk. It is time for governmental price-fixing and governmental milk distribution.

Among the careful and large-scale medical studies now appearing in print as a result of investigations in military hospitals during the Great War, is a report on arthritis, summarized by Pemberton in the Archives of Internal Medicine, April, 1920. Of 400 cases of arthritis studied, exposure was the exciting cause in 58 per cent. Apparent foci of infection were present in 72 per cent., and of these foci, 52 per cent. were in the tonsils, 33.5 per cent. in the teeth and 12.5 per cent. in the genito-urinary tract. Thus a considerable percentage showed no foci of infection. Studies on metabolism showed striking changes in two particulars. One-half of 40 cases showed an abnormal increase of blood creatinin, and in certain of these, decline in blood creatinin paralleled clinical improvement. A large proportion of the cases showed a lowered tolerance roughly proportional to the severity of the arthritis. Clinical improvement was apparently unrelated to the type of therapy, but was most abrupt where focal infections were removed. In some severe chronic cases a persistent lowering of sugar tolerance was found. Attention is called to the importance of dietary restrictions in the treatment of such cases.

## Special Article

### CONCERNING OSTEOPATHY

By EMMET RIXFORD, M. D., San Francisco.

It is a sad commentary on the degree of education and understanding of the general public that its attitude toward the things which the student of public health knows most vitally concern the human race, its development, its health, its efficiency, its very perpetuation, is that of neglect, of "laissez faire." The world is too busy to bother about that which is not obvious. "Let the doctors worry about it; they are the ones interested!" Really this is worse than the attitude of the ostrich for, by burying his head in the sand, he shows at least that he is alive to the approach of danger. But it is said people are discussing health matters now as never before. Shall we look upon the ever increasing crop of "antis" as evidence of an awakening public consciousness in matters of public health and clean living? This we would gladly do if the protestations and the propaganda were honest. Consistency would not so much matter if the heart were in the right place and the purpose sincere, for in the last analysis facts, like the large potatoes in the basket, will surely come to the top, if the basket be shaken long enough and hard enough.

In a new country like ours where opportunity

is widely open to everyone the idea of freedom is apt to run riot and degenerate into license. Every man is as good as another and it is so in some sense but not in all senses. A large part of the public cannot see that there is any real need for physicians to be educated before they should be allowed to administer to the sick because the public is unthinking and does not realize that the problems of medicine are difficult, that they are worthy of the best thought and study the world can give and that it is *more dangerous to more people for a tyro in medicine to run amuck than a desperado with a saved-off shotgun.*

Treating the sick is an act of kindness and anyone can perform acts of kindness. If anyone, no matter how ignorant, professes to be able and willing to relieve suffering why should he not be permitted to do so? Suppose he is paid for it? Why should he not be paid? He earns his money. Thus, all one has to do to secure a following which will contribute to his support is to advertise, and it is not in human nature that this opportunity should be entirely neglected. It would seem that the movement which is getting under way in trade circles in this country for honest advertising, i. e., for the article furnished to measure up to its advertisement apparently has not yet seriously struck the medical pretender.

A deeply grounded principle of American life is to give every fellow a chance—an unconscious sense of fair play which is one of the most precious possessions of our people to be guarded and cherished, but it must be kept within the bounds of consistency for license to one spells unfairness to another, and while it may be a very nice and kindly thing to permit an ignoramus to practice medicine, it is a little hard on the poor fellow who submits to the charlatan's tender mercies and yet the tender mercies of the clever charlatan are less dangerous than the honest endeavors of the ignorant.

That great observer of the foibles of human nature, P. T. Barnum, had it that people liked to be humbugged. This would seem to be superlatively true in matters of health. If people cannot find anyone to humbug them they will often deceive themselves; they will knowingly indulge in veriest quackery ostensibly to maintain what is merely a deluded sense of personal independence. I shall never forget being called to attend a brilliant lawyer of this city who was ill of bronchitis. Shamefacedly he began the history of his trouble by confessing his quackery. He was at that moment in bed with an electric wire clamped to his great toe, the other end of which was attached to a tiny brass cylinder hung out of the window. The bronchitis was supposed to be drawn out through his toe, then conducted along the wire and dissipated into the air from the surface of the cylinder, which by the way, was highly polished. In another case a learned judge had been going to a fellow three times a week for a month or more submitting each time to a dilating operation on the bowel which was supposed to relieve some affection more imaginary than real. One day he

happened to meet a friend coming out of the establishment who had been going there on precisely the same errand and for a similar length of time. The pair waited and met several other acquaintances who were also victims. They saw the humor of the situation and found their maladies suddenly cured. It is a strange thing that men, when ill, will not only not apply in the matter of their health the same logic and good sense they use in their daily lives but will admittedly and consciously violate all the principles which may have made them successful in business.

People have not yet gotten over the primitive and mediaeval notions of mysticism in medicine, the miraculous casting out of devils, the exorcism of the demons of disease and it is to be regretted that organized Christianity and pseudo-Christianity lend their influence to the perpetuation of this idea. The fact is the world is too young in scientific thought, its education in science too imperfect, for a very widespread or deep penetration to have occurred of anything approaching a real conception of the fact that modern medicine is built upon the laws of investigation and experimentation as is every other branch of science—physical, chemical or biological.

The idea of "school" in medicine seems destined never to die, for one dogma simply gives way to and is replaced by another. Our courts of law clinging as they do to tradition and precedent seem never to question the distinction between the so-called "schools of medicine" as if it were a matter of inherent right of groups of men to adopt some dogmatic principle and make it the basis of a system of therapeutics. In science there is no place for dogma. Truth is to be attained only by observation, experimentation and criticism and finally co-ordination into positive statement of natural law though finality in any large sense may be far distant.

The apathy of the public in these matters is such that it is made to devolve upon the medical profession to appear as partisans before the law-making bodies in order that the public health may be protected—a most undignified position, giving semblance of truth to the charge of those who from lack of knowledge or from perversity of mental make-up cannot or will not throw off their mediaevalism, that the educated physicians are organized into a medical trust—a proposition which is not only not the fact, but which every one knows is the height of absurdity.

Realizing these things the medical profession in its desire for serving the public has endeavored to have the legislature prescribe educational qualifications which must be met before candidates may be licensed to practice medicine, for in the practice of medicine often there must be used methods and medicaments which in incompetent hands are dangerous. It would seem self-evident that the general public ought to have interest enough in its own welfare to insist on the medical man having a proper education before giving him the approval of the State and permission to take such responsibility for the lives of its citizens are at stake.



The cynic will say: "If a man is fool enough to go to a quack or an unqualified practitioner he ought in the expressive language of the street to get 'what is coming to him'." Quite in this frame of mind I have heard an intelligent medical man say that our laws of regulation of the practice of medicine by repression of the unqualified are all wrong, advocating in place of this principle a State examination simply for purposes of certification as to educational qualification, putting the responsibility of the choice of physician squarely up to the patient.

That might be well enough, if only responsible people indulged in such gambling with their lives as the stakes, but whole classes in the community, whose lives are just as precious, are unable intelligently to make such choice. Children, the hope of the race, admittedly cannot make intelligent choice for themselves and until the public is better educated along scientific lines a very large proportion of our adult population are, and will continue to be, children when it comes to taking a rational view of problems of personal and public health.

Therefore the government of necessity for the present at least must be paternal in the matter of protecting the health and the lives of its citizens, and this is a great responsibility, comparable to that of a parent in shielding its offspring. The individual must be excused when he consults an incompetent physician, if that physician has the stamp of approval of the State. The State by giving license to practice medicine, by that very act, guarantees the educational qualification of the physician—it cannot shift the responsibility. If it gives license to practice without insisting on a proper educational qualification it certifies to a lie.

Now what has all this to do with osteopathy? Simply this, that osteopathy has come forward in formidable organization to break down if possible the educational qualification for license to practice medicine in the State of California. Against this it may be said that the schools of osteopathy are giving better training than formerly, as if osteopathy were endeavoring to be worthy of the responsibilities of the practice of medicine and surgery in the broader sense. If this is true and the claims of the osteopaths that the courses of instruction in their schools are the equal of the medical courses in the universities, or even if the educational requirement of the present law regulating the practice of medicine in California are met, their school should be recognized as a medical college, but then there would be no real use for the mysterious "principle" of osteopathy, just as finally there is no real use for the principle of homoeopathy. It therefore behooves us to inquire into the question of how far this claim of excellence of educational training in the osteopathic schools is justified.

In the first place what is osteopathy? Nobody seems to know. If the professors of that cult do know they exhibit a great reluctance to formulating a definition and no little ingenuity in avoiding it. A prominent osteopathist of Southern California testifying before the State Board of Medical Examiners in the matter of Application for the

Revocation of his License, in answer to the question: "What is osteopathy?" stated under oath: "Well, I don't know as I could give you an intelligent answer, just what osteopathy is, but I feel that osteopathy is that mode of treating diseases by any method that is right to relieve the human suffering from the condition he is suffering under." Of course this is no definition at all. They say that osteopathy is something which cannot be learned from books but only acquired from personal instruction. In looking over a number of books on osteopathy I have failed to find a definition, though the books are replete with accounts of "basic principles" which for the most part are garbled statements of medical facts culled from medical books. The dictionaries define osteopathy as a theory of disease which rests upon the supposition that most diseases are traceable to deformation of some part of the bony skeleton which by pressure on adjacent nerves and blood vessels interferes with their function and the circulation of the blood—a pure assumption without basis of fact either of observation or experiment—possibly true in a field of limited application but demonstrably incomplete and misleading even as a principle of action in the vaster fields of pathology and therapeutics. As a principle it is less subtle than the basic principle of Christian Science, because it is susceptible of experimental study, while the principle of Christian Science is not, since it is nothing but a logical truism, essentially meaningless.

I understand that osteopathy while clinging to the name has extended its mechanical conception of the relation of form to function, variations of the former producing errors of function which are called disease, by adding to the notion of deformation of parts of the bony skeleton the more subtle conception of displacement of individual cells of the tissues or groups of cells by which their function is disarranged. I say the more subtle conception for by the very minuteness of the tissue cell and the infinitude of its numbers its displacements cannot be measured in relation to observable functional phenomena.

Before osteopathy was an unorganized sect of rubbers existing in California and I have no doubt elsewhere, who were generally masterful men, for the most part ignorant, but well muscled and often voluminously bewhiskered, natural born doctors, rarely having had training comparable to that of the trained masseur, men who doubtless did much good in assisting the overfed to exercise vicariously and by their manipulations aided in the restoration of locomotive function after fractures, dislocations, etc., but who in their ignorance of pathology and clinical medicine were not very safe men for the care of the really sick. In a practical sense the osteopathists of today are descendants of this sect of rubbers. The notion of the treatment of disease by manipulation, however, is far older; witness Gassner in Switzerland in the eighteenth century.

Some practitioners of osteopathy are not willing to restrict their therapeutic activities to those fields in medicine and surgery in which massage and manip-

ulation are universally recognized as of therapeutic value just as the Christian Scientists are unwilling to limit their practice to the field of functional nervous derangements in which their assertions have a region of peculiarly beneficial therapeutic application, but are ambitious to cover pretty much the whole field of medicine and surgery—often in fields where the use of their methods cannot fail to produce harm either positively or negatively by depriving the patient of really curative measures or by disastrous delay in their application.

While many osteopaths are well enough trained to recognize lesions as being outside the legitimate field of massage and manipulation and are conscientious enough to advise the patient to consult a physician or surgeon, many will not so advise their patients, or will do so only tardily, apparently being unable to resist the temptation to give a few treatments.

For an account of the beginnings of osteopathy I would refer to the testimony given in the trial in Kentucky in 1900 in which a Dr. Nelson, graduate of the American College of Osteopathy, sued the State Board of Health for license to practice osteopathy in Kentucky. (See *Jour. Am. Med. Assn.*, Jan. 13, 1900.)

From this testimony we learn that osteopathy was "discovered" in 1892 by A. T. Still, who founded the American College of Osteopathy in Kirksville, Mo., a little town which now more than twenty years later numbers little more than 6,000 inhabitants. A Judge Ellison, attorney for the school, testified that a body of friends of Dr. Still, and citizens of Kirksville including himself, went to the State Capital and succeeded in getting a bill through the legislature chartering the institution, that the citizens of Kirksville had been greatly helped by the location of the school in their town. Thus it would appear that in the very beginning of osteopathy there was a pretty efficient political organization active in furthering its interests.

In Article 3 of the Charter as published in the Catalogue of the American College of Osteopathy it is stated that the object of the corporation is to establish a college of osteopathy, the design of which is to improve our present system of surgery, obstetrics and the treatment of disease generally and place the same on a more rational and scientific basis and to impart information to the medical profession, etc.

Article 4 provides for a board of directors of not less than five nor more than thirteen, naming A. T. Still, and Harry M. Still, Chas. E. Still and Herman T. Still, his three sons, and Blanche Still, his daughter as first members of said board. The charter further provides that the directors named and those whom they appoint shall control the institution for fifty years.

It was further in evidence that in Missouri it was enacted that the laws applicable to medicine and surgery do not apply to graduates of the College of Osteopathy, and the testimony of plaintiff's

witnesses show that they do not teach nor profess to teach medicine and surgery in the American College of Osteopathy—but this was in 1900. It was noteworthy that none of the Still family appeared to testify on behalf of their graduate, although several of the faculty of the college did.

Dr. Nelson, plaintiff, testified that osteopathy cures all diseases except cancer, syphilis and consumption, and that he treats Bright's disease and diabetes by manipulation stimulating "renic splanchnic," that he treats diphtheria by manipulation stimulating the vasomotor center in the back of the neck and by putting the fingers down the throat of the patient and manipulating the soft palate and the fauces, that the treatment of scarlet fever, lock-jaw, milk-leg, varicose veins, dropsy, retention of urine, piles, simple, benignant and malignant tumors, etc., etc., is by manipulation. When asked as to the detection of albumen in the urine he testified that he did it by the smell.

It is probably not to the point to dwell too long on these beginnings of osteopathy for it is claimed by the osteopaths of to-day that their educational methods and facilities have greatly improved and this is probably the fact. Without doubt since the amalgamation of the two schools of osteopathy in California in 1914, forming the College of Osteopathic Physicians and Surgeons of Los Angeles, the course of instruction to students has increased quantitatively, at least for, according to their announcement for 1918-19, the curriculum provides for 5750 required hours while Stanford University Medical School requires only 4182 and the Medical Department of the University of California but 4660. The 5750 required hours of the curriculum of the College of Osteopathic Physicians and Surgeons include 1560 hours devoted to osteopathic principles and technique. Deducting the 1560 hours of osteopathic teaching there remain 4190 hours of medical instruction within the meaning of the law regulating the practice of medicine, or about the same time requirement as in Stanford University Medical School. Under the law the graduates of the College of Osteopathic Physicians and Surgeons are eligible to licensure as drugless practitioners, but this is not enough. Their ambition is to be licensed as full-fledged doctors of medicine with the State attesting their competence to undertake the responsibilities of administering to the sick by means of drugs as well as by rubbing and manipulation and to perform any surgical operation. That is, perhaps the reason for the change of name from the Pacific and the Los Angeles College of Osteopathy to the College of Osteopathic Physicians and Surgeons. The responsibility for recognition of the College was put up directly to the State Board of Medical Examiners.

The State Board of Medical Examiners, on which, by the way, there are two osteopaths as provided by law, recently examined the College of Osteopathic Physicians and Surgeons to determine its fitness to graduate physicians and surgeons. In spite of the large number of hours on the curriculum the Board denied approval of the school as one qualified to prepare its students for the examination



for license to practice medicine and surgery in the State of California on the ground that the quality of instruction was deficient. The osteopathic organization then sued the State Board of Examiners in a Los Angeles Court to force it to give approval of their school. While the Court has not yet handed down its written decision the rulings of the Court in interpreting the powers of the State Board of Medical Examiners are amazing. The Board admitted that the curriculum as advertised provided for a larger number of hours' instruction than required by the statute but held that the crux of the matter was as to how those hours were utilized, in other words the quality of instruction given was all important. The Court held that as the law reads, it is mandatory on the Board to approve a school if its curriculum provides a certain number of hours of required instruction and that the Board had no right to refuse approval of any school because of any deficiency in quality of instruction; that the law merely provides that the Board may consider the quality of instruction given but may not act on it. In other words that the State Board of Medical Examiners is little more than a debating society whose deliberations may have some fancied academic interest but no power of making a binding decision on the basis of its investigations and deliberations.

Of course any such decision will unquestionably be appealed with every assurance that the higher court will reverse the Los Angeles court for, if such a decision should stand it would be possible for any group of men of whatever qualifications to organize a medical school with little more requirement than an ambitious program of required hours and a certain amount of equipment, whether they use it or not, or even know how to use it.

It is of course self-evident that if the osteopathic schools raise the quality of their education to that of the University medical schools they will have no attraction to offer their prospective medical students and the schools will close, for osteopathy without medical qualification has so limited a field that there is room in the community for only a small number of its practitioners. The only hope of the osteopaths therefore, as an organization, is to raise their standards barely to the minimum required by the State or else to break down the law either by persuading the legislature to emasculate it or by controlling the State Board of Medical Examiners, in whom lies a certain power of interpretation of the law. Judging by the strenuous efforts being made by the osteopathic organization to break down the law they consider that the line of least resistance, at any rate, as being less difficult a task than bringing their school up to even the minimum requirement of the statute, an attitude which is tantamount to a confession that their curriculum is not as they are wont to claim the equal of the University medical schools.

Perhaps the best test of the quality of medical instruction given in the College of Osteopathic Physicians and Surgeons is the attainment of its graduates as they appear before the State Board of

Medical Examiners. In the report of the Board for 1919 it is seen that 28 graduates and 1 undergraduate of this college took the examinations during the year. Of these 29, only 2 applied for license as drugless practitioners, less than 7%, while 27, or more than 93%, applied for license to practice medicine and surgery. Of the 2 who applied for license as drugless practitioners both passed—100%. Of the 27 who took the examinations for license to practice medicine and surgery, 13 passed and 14 failed, roughly 52% failed. But it is still more illuminating when one sees that of the 14 who failed, 1 had failed 7 times; 1, 6x; 1, 5x; 1, 4x; 5, 3x; 3, 2x; 2, 1x, averaging more than 3 failures per candidate. But of the 13 who passed 1 had failed 5x; 1, 3x; 3, 2x; 7, 1x before taking this year's examination. Of the 13 who passed only 1 passed without a previous failure. Surely this is not a record indicating any very considerable success in teaching the subjects ordinarily provided in the medical curriculum. Certainly not a record to inspire the general public with any great degree of confidence in the fitness of the graduates of this school to practice medicine and surgery. No wonder the osteopaths are striving tooth and nail to have the medical practice act emasculated.

I have studiously avoided telling humorous stories of osteopathy making fun of the cult, though the opportunities are numerous enough and the temptation great. On the contrary, I have sought to approach the subject with serious intent even at the risk of dullness, simply to give an unprejudiced account of the more obvious facts in the situation.

A serious examination into osteopathic literature entails much sacrifice on the part of the reader for the stuff is such pathetic twaddle. A Treatise on Clinical Osteopathy which is before me, published by the A. T. Still Research Committee, emanating, therefore, from the very fountain head of osteopathic "discovery" and teaching, consists apparently of excerpts from various medical works without genuine acknowledgment of the source, garbled and simplified so as to make pretty much the whole of medicine evident at a glance. Among the contributors are several members of the College of Osteopathic Physicians and Surgeons. In the account in this book of the aetiology of almost every disease mentioned in addition to an enumeration of generally accepted causes there appears some statement of a so-called osteopathic cause. Thus bronchitis is due to streptococci and other bacteria, exposure to cold, etc., and to "displacements in the lower cervical and upper dorsal spine." Appendicitis is due to bacillus coli, etc., or "to perverted blood supply resulting from subluxated lower ribs or the vertebrae from the tenth dorsal to the third lumbar." "A number of cases will respond immediately when the lumbar lesions are adjusted."

In the account of typhoid fever occurs the following: "When typhoid fever is present in a community its presence should be suspected in any individual showing the characteristic prodromal symptoms." "Treatment inaugurated at this time

should consist of a thorough correction of any lesions found in the lower thoracic spine and the ribs. The ribs should be raised freely and the usual spinal rigidity be completely removed. Bony lesions anywhere in the body should be corrected."

Think of it! Suggesting that typhoid fever is due among other things to displacements in the vertebrae and ribs and holding out something which is very like a promise that in certain early cases "adjusting" such bony "lesions" will abort the disease. Raising the ribs seems to be quite a favorite manoeuvre for it is advised as being efficacious in such widely different affections as bronchitis, heart disease, cirrhosis of the liver and typhoid.

When there is no very obvious (even to an osteopathist) relation of the malady to any mechanical cause, evidently not to lose the case for osteopathy the author takes refuge in such general advice as to "correct any lesions which may be found" or to "adjust any displacements which may be present particularly in the lower cervical and upper thoracic regions." In the account of broncho-pneumonia we read the advice to "reduce temperature by firm steady pressure in the sub-occipital fossa."

The whole matter sums itself up into the historical fact that men who have had some success in relieving certain forms of suffering by rubbing, thumping, pressing, manipulating, seeing the limitations of their field, have become ambitious to branch out into the practice of medicine and surgery, but are apparently unable or unwilling to make the necessary effort to acquire the logically necessary education and training, and have organized for the purpose of bringing this about. Without an adequate educational qualification they insist on being allowed to hold themselves forth as competent to care for the sick and further insist that the State take the responsibility of attesting to their competence. Thus boldly they advocate the inauguration of a most dangerous public policy.

The ultimate interest of the medical profession in the matter is simply that of maintaining a high standard of educational requirement for license to practise medicine and surgery as a protection to the lives of the people.

With the large political influence of the Christian Scientist organization and the osteopathic it behooves the medical men of the State to work together as a solid unit to the end that the law of California regulating the practice of medicine be not made a laughing stock. Better no law at all than a law which gives the approval of the State to ignorant pretenders to scientific attainment or to skill in administering to the sick. Here is a field in which the League for the Conservation of Public Health finds permanent work to promote and protect proper standards. There is no doubt that in the medical profession of California there is sufficient latent public interest to maintain proper standards in matters of public health and in the educational requirement for license to practice medicine and surgery in the State. With the medical profession behind the League that latent power is becoming active and effective.

## Original Articles

### THE X-RAY AS AN AID IN DIAGNOSIS OF NON-TUBERCULAR PULMONARY CONDITIONS.\*

By LLOYD BRYAN, M.D., San Francisco.

As the subject of X-ray diagnosis of non-tuberculous pulmonary conditions is a very extensive one, it seems wisest to limit the discussion almost entirely to a demonstration of lantern slides showing only those conditions which in our experience we have found to be the ones most commonly diagnosed tuberculosis and to give the important points in the differential diagnoses.

The first point in differentiation from tuberculosis to be considered is position of the lesion. Baetjer of Johns Hopkins states that if an imaginary line be drawn horizontally through the center of the chest, those lesions invading the lung fields, the major portion of which lies below this line, are non-tuberculous, and those lying above the line are tuberculous. If we exclude mediastinal tumors, and occasional upper lobe abscess, or carcinoma, this rule is practically always true.

A very common condition to be differentiated from tuberculosis and in which the X-ray examination may be of definite aid, is lung abscess. Here the lesion is more frequently at the base, but may be in the upper lobes more particularly on the right side. It is characterized by an irregular shadow of increased density which may or may not involve the whole lobe. As a rule, the area of increased density fades out gradually into the normal lung tissue, and if the cavity of the abscess be filled with fluid, the dense area will be homogeneous. If the cavity be only partially filled, a fluid level with gas above it can be demonstrated, and the fluid level will change with change of the patient's position. There is practically always a large area of consolidation around the cavity so that the lesion appears much larger on the plate than it really is, and the surgeon may be disappointed in finding such a small cavity. There is also enlargement of the bronchial root glands, particularly on the side of the lesion, and increase in the peribronchial markings. They may at times be multiple and may heal without leaving a trace of the original condition. The similarity to tuberculosis is seen in cavity formation. However, the tubercular cavity practically always has a definite fibrous capsule or wall about it and has the characteristic mottling in other portions of the lung. In the true abscess cavity, rarely can a true capsule be demonstrated.

From abscess must be differentiated bronchiectasis, and this may at times be very difficult. However, if plates be taken immediately before and after coughing, a marked difference will be seen in the two. The characteristic lesion of bronchiectasis is a marked thickening along the course of the larger bronchi, and enlargement of bronchial root glands, with multiple areas of in-

\* Read before the Forty-ninth Annual Meeting of the Medical Society, State of California, Santa Barbara, May, 1920.



creased density in the lung field near the bronchi. In some instances the costophrenic angle may be obliterated.

Bronchitis, both chronic and acute, gives a picture which is characterized by thickening along the bronchi, but never extending clear out to the periphery. The areas of density in the lung fields are lacking, and there is practically no change between plates taken before and after coughing.

From abscess and tuberculosis must also be distinguished malignancy of the lung. This may be carcinoma or sarcoma either secondary or primary, and primary endothelioma of pleura with secondary invasion of the lung fields. Sarcoma of the lung may be either primary or metastatic. When primary, it usually begins at the hilus and extends outward gradually into the lung field usually confined to one lobe. Pleural effusion occurs late or not at all. Calcification may occur within these tumors and they may occasionally develop on a dermoid cyst. Lympho sarcoma may be at times impossible to differentiate from the true sarcomata, but the former are as a rule mediastinal tumors with little direct invasion of the lung fields. However, they may at times involve a whole lobe as do the sarcomata. The sarcomatous tumors respond very readily to X-ray therapy at least for a time and this fact helps to differentiate them from the carcinomas. Metastatic sarcoma appears as multiple or single rounded diffuse shadows of increased density scattered throughout the lung fields. As a rule, these shadows have rounded, smooth margins like coins, but occasionally may be fuzzy in outline. This same picture may be given by certain types of metastatic carcinoma so that it is impossible to differentiate between the two. It should be borne in mind also that multiple small abscesses of the lung may also give an identical picture.

Another type of metastatic type of carcinoma which is most frequently seen give a picture of rounded discrete masses at the hilus. These masses may be sharply separated and with rounded, smooth edges or may be irregular in outline or may be confluent. Early, it is impossible at times to distinguish them from the ordinary enlarged glands due to any infections and which have been so commonly observed following the recent influenza. Later, there is extension out along the bronchi into the lung fields, thickening the peribronchial shadows and giving rise to nodular infiltration of the lung fields.

A very rare type of secondary malignancy is the so-called miliary type with fine, small discrete areas, of increased density throughout the lung fields, very much like the picture of miliary tuberculosis, except that the areas are a little larger, more dense and more sharply outlined than those of tuberculosis.

Primary malignancy may be of two types. The nodular, which consists of rounded dense shadows, sharply marked off from the lung fields near the hilus. This type is usually unilateral and may involve only a single lobe or may involve the entire lung. In the later stages this type gives

a dense homogeneous shadow involving the whole lung field. At times an irregular, cavity-like area may be observed in the center of the lesion.

Another type is that which starts in a large bronchus and extends gradually out along the bronchial tree. It has a smooth margin except at the advancing margin which is irregular. The most common type in our experience is a bilateral process, most common in the central or lower portions of the lung, which apparently starts near the hilus and grows rapidly out along the several bronchi into the lung fields. It gives early a picture which cannot be differentiated from an inflammatory process. There is thickening of the bronchial markings with small nodules scattered along the bronchi. It extends well out to the periphery and gives pleural effusion early. In one case there was early involvement of the pericardium with pericardial effusion, which did not recur after tapping.

Another condition which is frequently confused with tuberculosis is pneumoconiosis. Here we may have several types. The most common give a picture showing dense fibrous masses which are uniformly bilateral and with which smaller dense areas of fibrosis scattered throughout the central and lower portions of the lung fields. The apices are generally clear. Another type closely resembles miliary tuberculosis with small discrete areas of increased density throughout both lung fields, but sparing, in most instances, the apices. Here, however, the mottling is more dense, the areas are sharper in outline, more uniform in size, and smaller than those of miliary tuberculosis. Tuberculosis and pneumoconiosis may be associated.

In conclusion, I wish to state that no attempt should be made to make a diagnosis from the X-ray examination alone, but that it should be considered only as an aid and be correlated closely with a careful history and physical examination.

932 Butler Building.

## MALINGERING: ITS RELATION TO THE DOCTOR.\*

By JOSEPH CATTON, M. D., San Francisco.

From the department of Neurology and Psychiatry of Stanford University Medical School.

This communication deals with malingering, especially with its relation to the doctor. Lying, deceit, feigning or any type of fraud, when applied to matters of disease or disability, constitute malingering. The fraud may relate itself to the existence, etiology, symptomatology or severity of a disease or disability.

Malingering in one or another of its forms may be met with in public hospitals, asylums, jails, and in the military, and in connection with industrial accident and health insurance. It may be resorted to by persons bringing suit for personal bodily injury or by those on trial for murder.

It is hoped that this paper may point out that malingering is of sufficient frequency and of suffi-

\* Read before the Forty-ninth Annual Meeting of the Medical Society, State of California, Santa Barbara, May, 1920.

cient importance to require serious attention; and more particularly, that in practically every case of malingering some doctor consciously or unconsciously aids, abets or encourages the imposter.

Is malingering prevalent? At first sight, opinions may seem to be at variance. On examination, however, they are seen to have much in common and to have differed mainly through their taking into account, different definitions of malingering. If by malingering is meant, out and out fraud as regards disease or disability, with neither organic nor functional basis, and in the mentally sound, then indeed the overwhelming majority of observers are on record that malingering is rare. If the term includes less frank fraud, for example, exaggeration or prolongation of illness, false imputation of causation, and the like, then the authority is equally strong that malingering is quite common.

The malingerer should be recognized because (1) he is a drain on army pension systems, public institutions, insurance companies and private charity; and (2) in order that the patient himself may be benefited by such treatment as is indicated for the mental disturbance which is frequently found at the bottom of the fraud.

That the doctor always sees the case of malingering at some stage is a certainty, and the fraud can be perpetrated further only with his acquiescence. Medical men dislike to feel that "this field of opportunity is great, and sorry commentary though it be, it must be admitted that the opportunity has been well improved" (Brothers). And what doctor likes to be told that "the professional witness is always partisan, ready and even eager to serve the party calling him" (Wellman). But let the matter be considered in certain of the fields in which malingering and the doctor may be found related.

#### IN PRIVATE PRACTICE.

The physician who is called upon to certify as to the illness or disability of a person, regardless of the purpose, must be constantly on his guard. While his first certificate may be a just one, he must watch that it is not continued thoughtlessly. Certain physicians have continued to certify a person as ill for fear of losing the work of a lodge. In England the panel of the easy doctor is swelled by the malingerers.

#### IN THE MILITARY.

A review of the literature of all the belligerent countries engaged in the recent war points to a distinct rarity of out and out malingering. However, the less frank forms were very, very common. There was not more than 1 per cent. of outspoken malingering reported in the camps in this country. Overseas, the desire to remain behind the lines; the care, comfort and even luxury of the convalescent areas; and the desire to get home after the armistice, were among the prominent factors that determined the nature and number of complaints—sometimes playing a greater role than the actual pathology present. The relation of medical men to these facts will be dealt with briefly.

In Base Hospital "A," which could only have been an example of many others, it was not infrequent that physicians prepared lists of soldiers who should not be classified as well and returned to the trenches because they were handy workmen or good entertainers.

In the period September to December, 1918, not a single member of the medical staff of Base Hospital "A" was sent to the United States because of disability; in fact no case of discharge of a medical officer because of disability, among the some 125 officers of the hospital center of which this hospital was a part, came to the notice of the writer. On the contrary, in Base Hospital "B," (with a staff of about 30) in the three months' period following the armistice, nine of the staff were classified for return to the States and four more approached members of the Classification Board with this in mind. It does not seem reasonable that the difference in the records of the 5 Base Hospital Center and Base Hospital "B" alone, in the matter under discussion, is just a "happen-so." A few of the officers were genuinely ill in sufficient degree to warrant return to the United States. In others it is the opinion of the writer, and it seems to have been the opinion of other medical officers, that there was gross exaggeration of complaints. If some of the officers were in the distress claimed, they must have malingered by dissimulation to have gotten into the service. Here again let it be noted that medical men were parties to one or another form of malingering. These "sick" officers actually appeared before a board of medical men and had their complaints affirmed. It had been rather common knowledge in the case of one officer, for example, that he had had certain rectal complaints and a positive Wassermann in an army camp in this country, the same being concealed in order that he be sent overseas; later he was returned on the basis of the old pathology.

One case report will show how a physician consciously helped a malingerer to be sent to his home. A private in a Base Hospital in France complained of sour stomach, nausea and vomiting. After prolonged observation, he was classified for return to the United States and labeled something to the effect "Gastro-intestinal Disease: undiagnosed." He succeeded in being reclassified at various hospitals until he reached his home city, where the war having ended, he was discharged as a well man. In braggadocio fashion he informed the writer that his illness had been purposefully produced by taking repeated doses of ipecac. One of the doctors who had been on the staff of the hospital which originally classified the soldier was given this information. He stated that he had known of the matter at the time and had been one of the board that sent the malingerer home.

To show how widespread malingering (minor forms) may become in an army and how seriously it may cripple the efficiency of an army, let it be pointed out that during the Civil



War it became necessary for the adjutant-general and President Lincoln himself, to continuously exhort, urge and threaten soldiers who had absented themselves from duty, in the attempt to get them to return to the ranks. Also the results of Col. Munson's studies of "Absenteeism" in the Civil and Spanish wars should be noted. He states "not a single instance of malingering is reported in the medical history of the Civil War, in connection with the almost inconceivable number of 6,454,834 admissions to sick report which is there recorded. The reports of the surgeon-general likewise do not show a single case of malingering as having been reported among the 317,915 admissions during the Spanish War." However, he shows that in 1865, some 300,000 Union soldiers were absent from duty and had reached their homes on account of matters related to disease or disability, and that only 600,000 remained on the field of battle. After deducting the deserters and the number truly ill or disabled, the hundreds of thousands that remain are found to have been aided in getting to their homes by medical men. It should be stated that malingering was recognized by some of the Civil War surgeons (Keen, Morehouse, Mitchell), but for some reason their reports did not find their way into the Medical History of the War.

#### LITIGATION CASES.

In the last three decades there appears to have been an increase in the number of suits following personal injury out of proportion to the increase in the number of accidents. Corporations would rather settle small claims than go to court; it is no wonder that such claims are made frequently. Juries tend to be partial to claimants; no surprise that a person brings his jarred body into court for compensation. Even physicians and the clergy have brought claims where there was grave doubt as to the justice of the same.

In connection with city hospital work, it first came to the notice of the writer that not infrequently a lawyer would reach the institution almost as soon as an accident case. A suit for personal injury would be commenced on the contingent basis; this because the patient was without funds. Later, it was learned that these men were known as "runners" and that they were frequently connected with legal firms making a specialty of accident cases. The abuses of the contingent fee system are apparent;—the lawyer becomes more than the legal representative, his interest in the outcome may become equal financially to that of the patient himself. More particularly, however, are physicians interested in the fact that medical men also may take cases on the contingent basis. It seems absurd to expect a medical man to testify in such a manner that the chances of his receiving compensation are cut off.

Also there is a definite tendency, aside from the contingent fee phase, for a medical man to be partial to the side employing him; the injured man's doctor tends to elaborate the symptoms and signs into a more or less serious disability; the expert in the employ of a corporation tends to see

malinger in the case where objective findings are not readily found.

The present system of expert testimony and the use of the hypothetical question in our courts, furnish a means of a physician's consciously or unconsciously, willingly or unwillingly, being a party to malingering. Both these phases of the question will be taken up in connection with the next consideration.

#### MURDER TRIALS.

One of the most disgraceful spectacles, so far as the medical profession is concerned, is the result of the present system of expert testimony in the courts in connection with trials for murder. One had only to review the court records of San Francisco for the past few months to find included therein (1) absolutely contradictory expert medical testimony, in cases where the tendency in private practice would have been to have arrived at similar if not identical conclusions, and (2) testimony not founded on known scientific medical facts. These records are but examples of those to be found at any time in any city.

The most blatant case was the well-known affair in which, because of an alleged flirtation with his wife, it appears a husband shot and killed another man. Several doctors testified in this case and gave, under oath, opinions some of which were in absolute disregard of scientific medical fact. For example, one opinion was to the effect that since the prisoner had a blood pressure of 140, a nervous condition was indicated that might render the man not responsible for his acts. Such testimony as this resulted in a verdict of not guilty of murder by virtue of insanity. It would be well for the doctor who feels inclined to give this type of testimony to remember that a charge of fraud may be based not only upon a knowingly false expression of opinion under oath, but by giving "an opinion in utter disregard of the facts and inconsistent with the honesty and good faith of the party expressing it, when the party has, or, under the law, should have special knowledge on the subject not possessed by the other party, and where he ought to be able to approximate the truth" (Brothers).

In another case it appears that a woman shot and killed the affinity of her husband (?). One medical expert testified that she was insane, another that she was not; another's opinion who had been asked to testify was, that while he sympathized deeply with the woman, he considered her sane. This woman was found not guilty of murder by reason of insanity.

In a third case it appears that a man, after drinking some beer of low alcoholic content, sought a quarrel with the owner and others in a saloon. He was put out. He went to his home, secured a shotgun, returned and shot and killed the saloon-keeper. One medical expert testified that he was insane. Another opinion was that he was sane. The jury found him not guilty of murder by reason of insanity. He was placed in the detention hospital in San Francisco and about

three weeks later was adjudged sane by the insanity commission and set free.

Why did the testimony of these medical experts differ? Why does the testimony of any medical experts differ? There is no question that in some cases they are consciously parties to fraud. But there are, also, legitimate reasons for disagreement in some cases. Experts differ in opinion; they cannot disagree as to facts. With the present method of individual examination and no consultation of the experts, each may not have accumulated the same or similar facts from which to form conclusions. When accumulated facts are the same there is a tendency to agreement as to opinion. This is why consultations in private practice and in the clinic lead to the same or similar conclusions. Each investigating physician should offer the facts he has accumulated to a common pool; from the latter better opinions would be formed.

"Human minds are, within limits, all receiving and sifting machines of one type" (Pearson). Normally constituted minds are so nearly alike in their workings, that diagnosticians of normal mental endowment who are well educated in the contents and methods of the medical sciences, on studying similar pathological conditions will, we may feel sure, arrive at similar conclusions" (Barker).

Regarding the "hypothetical question": this frequently causes a physician to become a party, against his will or otherwise, to a malingerer's game. Even legal books refer to it as one of the greatest vices of expert medical testimony, and the most abominable form of evidence used to influence a jury. The hypothetical question is supposed to be a true synopsis of the testimony of the witnesses preceding the expert, and he is supposed to accept such testimony as if true, and give the jury his conclusions and opinions from these data, although he may believe or know certain of them to be false and fraudulent. Unscrupulous experts may use the "hypothetical case" as a loophole to give opinions of benefit to their side of the case, although they know such opinions to be based on untrue assumptions. It is evident that the hypothetical question may be of great use to the malingerer murderer or litigant.

It is generally the opinion that insanity is difficult to feign; indeed, it is a question whether the simulation of a psychosis or neurosis can be accomplished by a mentally healthy individual. However, there does not seem much need that the malingerer's picture be cleverly painted if doctors are available to take the burden of proving the derangement, upon their own shoulders—and this for a consideration.

#### INDUSTRIAL INSURANCE.

It is a matter of common knowledge that fraud as regards disease or disability in connection with industrial insurance is more or less prevalent. The percentage of cases showing malingering varies according to the observer. Collie found 8 per cent. of 3000 accident cases examined in nine years to be malingerers. In connection with his

work for two large public bodies, and 15 to 20 insurance companies, he saw about 2000 cases annually for some years. He found 25 per cent. of the cases examined fit to return to work. While the majority of the latter were not typical malingerers, they had unduly prolonged their illnesses. He found thousands of employees who should have been at work, claiming sick pay; a very great number of working people "lingering on the threshold of return to work"; that there had been a rapid increase in the number of non-fatal accidents, in the number of days of incompetency following accidents, and in the number of complications of accidents in the industries, with the advent of compensation laws. Collie's experience is representative.

When one considers these facts and remembers also that in every case where illness or disability was feigned outright, or falsely imputed, or exaggerated, or prolonged—the doctor has seen and affirmed the disease or disability—then one of the main reasons for this paper is apparent. And indeed, it is not uncommon knowledge that physicians do aid these unwarranted claims, either consciously or unconsciously. The laymen are cognizant of this fact if medical men are not. Such lay bodies as the English National Health Insurance Committee found in a departmental report that "the action of doctors with regard to certification and administration of the act generally has been unsatisfactory and that this is the almost unanimously expressed opinion of society officials."

The method of individual examination and lack of consultation in group leaves room for malingerer in industrial cases, as it was shown to have done in the case of expert testimony in court. Two cases of "accidents" in the industries will be cited to show that thorough investigation and group consideration would have determined compensation more equitably and more speedily.

Case V. (A diagnosis of malingering made before thorough investigation and group consultation). A male laborer was struck on the back of the head and the left shoulder by a piece of timber falling a few feet. His scalp was lacerated and his shoulder bruised. Was under observation and drawing compensation from January 1919 to date. Had been referred by insurance company to some nine physicians in series. Complaints were related to head, eyes, and left shoulder and had led to the following diagnoses: trauma to head with neurasthenia; traumatic arthritis, left shoulder; chronic arthritis, left shoulder; arthritis of all joints; neurasthenia; malingered blindness; hysterical amaurosis. When seen for this examination the complaints were headache; considerable disturbance of vision; pain in left shoulder; mental disturbances; and slight attacks of dizziness, faintness and dyspnoea; all of which were claimed to have come on since the accident. Family history and past history were negative. The physical examination showed nothing excepting some muscle spasm and crepitus on attempting to manipulate left shoulder; and very prominent frontal eminences. The neurological examination showed slight generalized hypertonicity of musculature and more or less generalized nervous twitchings. Some weakness of the left arm. Patellars and ankle jerks exaggerated equally on the two sides. Pseudoclonus of both knees and ankles. The mental investigation showed an



illiterate. More or less retardation of many of his mental processes. Slowness in expressing his orientation as regards time. Since the accident, he and his friends have noticed a change from a jolly person to an apathetic one. His previous eye examinations had led to the opinion that he had had, at various times, tubular vision in one or the other eye. Also a diagnosis of malingered blindness and one of hysterical amaurosis had been arrived at. One physician had reported that, from considerable hysterical defect in vision, he had by suggestion restored practically normal vision. The patient denied emphatically that treatment of any kind had improved his condition. During this examination the tubular vision was not found. The patient's fields of vision at 6 feet were definitely larger than at 1 foot. The left eye deviated outward at times. Both pupils reacted readily to light. The right pupil was slightly larger than the left, both in the contracted and dilated state. There was no tendency towards dilatation. He was not confused and gave same findings under various tests for functional disease and malingering. The fundus was thought at times to have a slight haziness of the nasal disc margins; the laminae cribrosae were not well marked. The X-ray report regarding the skull was negative. The urine was negative including examination for sugar. The blood Wassermann was negative. The spinal fluid Wassermann was XX with 0.2cc. of fluid. The Wassermann reaction in the spinal fluid in connection with the symptoms and signs led to a diagnosis of cerebro-spinal syphilis. There were no findings that would not harmonize with this diagnosis. The varying eye findings might be explained by the syphilis and a superimposed functional element. In the presence of these positive findings, certainly a diagnosis of malingering or hysteria alone, would be incorrect and unjust.

Case W. (A psychopathic individual encouraged in her malingering by lack of thorough investigation and consultation.) A woman of 33 years, claimed to have developed severe pains in the lower back, as the result of attempting to lift a box of paper cartons in February, 1920; and to have become subject to many nervous complaints since the accident. She had been referred by the insurance company to some five physicians in series; and had been drawing compensation to date. Her symptoms had led to the following diagnosis: chronic tonsillitis; sacro-iliac slip; arthritis sacro-iliac bilateral; cystic ovary right; adhesions drawing uterus to right. Reference had been made in report to the fact that she was neurotic and a rather marked neurasthenic, and might have an anxiety neurosis. It was only when she had been given a psychiatric examination that the following data and more were ascertained. Her father was a preacher and a poet; one brother a poet; another a preacher; a third a musician; another an epileptic. The significance of the supposed "professions" in her family lies in the fact that they may have been judged by the same standards as have proclaimed the patient herself a writer and poet. The examination developed the facts that she could not tell the day of the week; had excessive ideas of personal ability especially as a writer and poet (not borne out by the facts); some exaltation; irritability; marked increase in psychomotor activity; and peculiarities in dress; she made special appointment for consultation at 11 a. m.; when she arrived after 12, her only excuse was that she didn't feel like coming sooner. Further, there was some flight of ideas; and certain hyperquantivalent ideas. She had been nervous since early childhood. Complicating measles at 11 years, she developed a functional blindness lasting 2 to 4 years; slight attacks of the latter trouble have recurred from time to time, for example—at the appearance of her first menses, on her wedding night, and after the "accident."

Her sex life has been exceedingly pathological. Her marriage was most unfortunate; she contracted gonorrhea which led to surgical interference, and which it should be noted was accompanied by even more severe back pains than the patient claims resulted from the "accident." Also after many quarrels and much violence her husband shot her with bird shot in the buttocks and left arm. Divorce followed. At present she resides with another man, but denies intimacy with him. She carries a large bullet with her with which she "will kill the — — husband if he ever shows up" and the lover "if he is unfaithful." She will also break the writer's back "if he divulges her history." She has been writing poetry as long as she can remember and exhibits entire books of childish, obscene and vulgar rhymes dealing with such things as her wedding night (now 15 years ago), and with the lines ending almost always with wed or bed; also she repeats over and over whiskey, wine, and money. These and many other findings lead to the diagnosis of constitutional psychopathic state with marked disturbances especially in sexual self. Any extraneous cause might give rise in this person to the train of symptoms which were claimed to have followed the "accident."

#### SUMMARY AND SUGGESTIONS.

It has then been noted:

- (1) That out and out malingering is very, very rare.
- (2) The minor forms are exceedingly common.
- (3) Malingering in any form requires serious attention in order that compensation and care may not be forthcoming to imposters.
- (4) Doctors are usually parties to the fraud with or without their knowledge.

This paper is concerned primarily with the role played by the doctor. The problem is evident; what is its solution? The following suggestions are listed for consideration:

- (1) Thorough history and examinations, including those indicated in the specialties and in the laboratory, are absolutely essential in all cases.
- (2) The method of examination should include consultations and the pooling of all accumulated data in order that the misdiagnosis of the presence or absence of malingering or other conditions might be avoided. This consideration leads to (3), (4) and (5).
- (3) The present inefficient and deplorable system of expert testimony as regards sanity in murder trials should be replaced by some such system as: (a) The appointment of one medical expert by each of the defendant, prosecution and court. These physicians should render their conclusions and opinions to court and jury after all indicated investigations and group consideration; or (b) when a prisoner pleads insanity as a defense for murder, trial should be postponed and he should be sent to a state hospital for observation. After sufficient period of investigation the results of this unbiased study with the staff opinion should be reported to court and jury.
- (4) Likewise the expert testimony system should be changed in the case of litigation growing out of the results of alleged personal injury. (See 3 (a).)
- (5) Industrial accident cases should have the

medical student will read any of these books written by a mystic about three centuries ago, but it would be worth his while to glance over them, if he came across no other little gem of wisdom than this: Speaking of the various investigators in anatomy and physiology, he says there are some born for experimental observation and endowed with keen insight. "There are others again who enjoy a natural faculty for contemplating facts already discovered, and eliciting their causes. Both are peculiar gifts, and are seldom united in the same person. Besides, I found, when intently occupied in exploring the secrets of the human body, that as soon as I discovered anything that had not been observed before, I began (seduced probably by self-love) to grow blind to the most acute lucubrations and researches of others, and to originate the whole series of inductive arguments from my particular discovery alone."

In reading this work of Swedenborg one is reminded very much of the synthetic philosophy of Herbert Spencer. It is the assembling of the observation and wisdom of others by means of which the author constructs a philosophy which to him answers the questions of life. Through the various chapters he leads up by rational process to the approximate location of the human soul which he establishes in the ebb and flow of the cerebral-spinal fluid in the ventricles of the brain; that is, so far as one can understand Swedenborg. But, of course, he says, this is only the material manifestation of the activity of the higher cause which operates upon this particular part of the anatomy.

In the light of modern investigation, Swedenborg would probably go a little further in placing his finger upon the exact spot where the soul ultimately rests. If you have a liking for deep obscure thought, read Swedenborg. It has a very calming effect upon the emotions.

## Clinical Department

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 6. March 8, 1915. P. R. Male. American. 2½ years of age. No. 8849.

**Complaint:** Twitching of extremities, vomiting, fever.

**Family History:** Father, mother, two brothers and one sister alive and well. No dead children and no miscarriages. No history of tuberculosis in the family or exposure to it.

**Past History:** Full term, normal delivery, birth weight, 7½ pounds. Breast fed for 16 months, supplemented after the 6th month by Nestle's Food. Present diet chiefly milk (commercial), fruit and vegetables. He had bronchitis when 6 months of age. At the age of 1½ years there was an acute cervical adenitis of the left side ending in suppuration and requiring incision. After a discharge persisting 4 weeks the condition apparently entirely healed. He had pertussis when one year and eleven months and coughed for 3 months; measles when two years and one month, at which time he was very ill for 3 weeks and for 2 days was in a "stupor." He has been subject to frequent colds and sore throat. The digestion and appetite have always been good.

**Present Illness:** Three weeks before entry the child contracted a severe cold which was accompanied by much malaise and anorexia. Five days before entry he became much worse; he complained of being tired, was irritable and refused to play. At this time there was a slight discharge from the right ear. Three days later he seemed very much worse, vomited twice and there was a temperature of 102°F. There were no convulsions, but frequent twitchings of the arms and legs. The bowels were constipated. Castor oil caused the passage of several foul smelling watery

### FINDINGS IN CEREBRO-SPINAL FLUID

Types	Amount	Pressure	Character	Clot	Cell Count	Differential	Organisms
Normal	5-10	None	Clear	Absent	5-10	Monos. or Endothei	None
Meningismus	5-20	Slight	Clear	Absent Small or Fibrin	5-80	Monos. Predominating	None
Poliomyelitis	10-50	Slight	Clear	+ Early — Late	10-500	Monos. Predom. acutely. Polys. late, if at all	None
Encephalitis	10-60	Slight	Clear	Absent or Slight	10-100	Monos. Predominating	None
Tuberculous	10-100	Moderate	Clear to Opalescent	Fine	15-200 (+)	Monos. Predominating	B. Tbc.
Epidemic C.-S. Fever	10-100	Marked	Cloudy	Marked	80-800 (+)	Polys. Predominating	Diplococcus of Weichselbaum
Pneumococcus and Streptococcus	10-100	Marked	Cloudy	Marked	80-800 (+)	Polys. Predominating	Pneumococcus or Streptococcus
Others	10-100	Marked	Opalescent to Cloudy	Marked	40-400 (+)	Polys. Predom. Influenza Oc. Monos.	Various



movements. He was referred into the hospital by his private physician with the diagnosis of "probable meningitis."

**Physical Examination.** A well developed and nourished boy of 2½ years, lying quietly in bed. The cheeks are flushed, skin clear, lips and mucosae of fair color. Head well shaped; marked perspiration so as to dampen the pillow. Pupils equal, circular, react to light and distance. There is no strabismus or nystagmus. Ears—slight discharge in the right canal, right tympanic membrane dull, congested. Left membrane congested, not bulging. Nose, teeth, negative. Tongue coated, tonsils enlarged, cryptic, reddened, but with no exudate. Scar of cervical adenitis left neck. Cervical glands palpable but not unduly enlarged. Chest negative. Lungs negative except for moderate interscapular dullness. Heart negative. Abdomen distended, tympanitic in the flanks. Negative to inspection and palpation. Reflexes—patellars present but sluggish. Biceps and triceps present on both sides, Babinski, Oppenheim and Brudzinski positive. Markedly positive neck sign and cervical rigidity. Kernig positive on both sides and causes pain in the abdomen.

Blood count: Hemoglobin 72%, R. B. C. 4,768,000, W. B. C. 31,450. Differential—Polys. 84%, Lympho 9%, Large monos. 7%.

Urine—negative.

Lumbar puncture—25 c.c. clear fluid under increased pressure. Cells 4 per c. m. m. all lymphocytes. Nonne and Noguchi negative. Fehling's reduced. No clot on standing. No organisms demonstrated.

Paracentesis of right drum. Von Pirquet negative to human and bovine.

Luetin—negative.

March 10—No pathological reflexes can now be elicited. There is an area of consolidation demonstrable in the left lower lobe. Second paracentesis of right drum.

March 12—Right ear still discharging. Crisis of pneumonic process. Baby much improved.

March 15—Removed from hospital relieved.

**Diagnosis:** Acute suppurative Otitis Media and Right Lobar Pneumonia, left lower lobe. Meningismus.

**Discussion:** The present case showed nervous symptoms persisting after catharsis which would tend to suggest meningeal involvement as against an intestinal condition as the primary cause. The onset 3 weeks previously would point to a tuberculous rather than a cerebro-spinal form of meningitis. The presence or absence of eruption or of the taches cerebrales in meningitis in children is of no significance in the diagnosis. The abdomen may be sunken or distended (as in this case) but is practically never rigid (attempting the Kernig caused pain only).

There are two extremely frequent pathological conditions in children, and comparable with their frequency is their tendency to cause the superficial signs and symptoms of meningitis. These are, namely, acute pyelitis and acute otitis media. Perhaps next to these in causing meningeal signs is pneumonia. Examination of the ears and of the urine in every case will eliminate many errors in early diagnosis.

In referring to Case No. 5 of this series, it will be seen that many more signs were referable to the nervous system and, in particular to the meninges, in this case than in the other. Yet this was a toxic, so called serous meningitis (meningismus), the other an infection with the tubercle bacillus.

Differentiation is usually possible by means of a lumbar puncture, and yet from the following table, encephalitis, etc., may cause but few changes in the spinal fluid early in the disease. These two conditions, however, usually furnish other data for diagnosis.

## County Societies

### CONTRA COSTA COUNTY

An exceedingly interesting meeting was held by the Contra Costa County Medical Society April 10, 1920, at the Hotel Crockett, Crockett, Calif., diverging considerably from the usual. The members were the guests of the California-Hawaiian Sugar Company who tendered an elaborate banquet and afterward took the medical men on a tour through the refinery, soon to be the largest in the world. A large attendance was present.

### IMPERIAL COUNTY

A meeting of the physicians of Imperial County was held on May 3, 1920, for the purpose of re-organizing the Imperial County Medical Society, and the following officers were elected: Dr. W. W. Apple, president; Dr. R. O. Thompson, vice-president, and Dr. C. S. Brooks, secretary-treasurer. The re-organized society starts with a membership of twelve, with more to come, and the secretary promises that it will be a "good, live permanent society."

### LOS ANGELES COUNTY.

#### Meeting of the Los Angeles County Medical Association.

The Society met April 1, 1920, in the Friday Morning Club House at 8 p. m. in conjunction with the Los Angeles Surgical Society.

The Vice-President, Dr. John V. Barrow, presiding and speaking of the pleasure of having recently heard Dr. C. H. Mayo, the Chief of the great Mayo institution, introduced the Chief of the Urological Division of the Mayo Clinic, Dr. W. F. Braasch of Rochester.

Dr. Braasch spoke of "Recent Observations in the Study of Renal Tuberculosis," saying that he made some clinical observations from 1894 to 1919, giving statistics of cases and operations.

The diagnosis is based on the frequency of urination with pyuria, especially during the night and persisting for two or three months. In the male, renal tuberculosis occurs twice as often as in the female. Only ten per cent. of cases of renal tuberculosis were diagnosed before coming to the clinic, yet the tubercular bacillus can be found in 75 per cent. of cases. Inoculation of guinea pigs is not satisfactory as a diagnostic method, because it takes from six to seven weeks before there is an answer, and the short cut by exposing the guinea pig to the X-ray for developing the process more rapidly did not work well.

The differential diagnosis between a unilateral affection or renal tuberculosis, a medical condition or a surgical condition, must determine whether operation is indicated or not.

#### Discussion.

Dr. McGowen stated that Dr. Braasch had extraordinary facilities. He told of a French surgeon saying that those who have tuberculosis of the kidneys are not hopeless. Fifty per cent. of those suffering from tuberculosis of one kidney, if the diagnosis be made accurately along lines used by Professor Braasch, as proper examinations of the patient and a definite diagnosis, can be cured of their disease, relieved of their symptoms and sent forth to useful lives.

Dr. Braasch's conclusions were practically the same as those which he arrived at in Southern California. It is difficult to find whether the disease is confined to one kidney. The X-ray is extremely useful in making the diagnosis of tuberculosis of the kidneys. He ended by moving that a vote of thanks be extended to Dr. Braasch for the very interesting paper. The motion was unanimously carried.

Dr. Peterson said that genito-urinary tuberculo-

sis occurred chiefly between 20 and 40 years of age and that tuberculosis of the kidneys secondary to some other foci, is not as frequent as thought. In a measure it is a primary infection except that in early life there was some tuberculosis of the lungs. Some cases of pulmonary tuberculosis developed tuberculosis of the kidneys and that of the lungs got well.

Dr. Hartwick inquired whether partial resection of kidneys were made in the Mayo Clinic.

Dr. Braasch replied that no partial resections were ever done there. The active kidney was either removed or let alone. Partial nephrectomy has been done but without success.

Dr. McGowen remarked that nearly all cases of tubercular testicle get well without castration.

Dr. Anders Peterson of the Mayo Clinic spoke on the "Anastomosis of Ureter-technique, with lantern slides." He dwelt on four methods of reimplantation of ureters into bladders. The slides pictured the procedure.

Some one brought up the "no parking" ordinance and the hardships it would cause to practitioners. Dr. Shoemaker said that a committee had already asked the city council to modify the order but failed in their effort.

#### April 15, 1920—Joint Meeting of the Los Angeles County Dental and the Medical Associations in the Friday Morning Club House at 8 p. m.

Dr. Rae Smith, the president, opened the meeting by asking Frederick Leix, M. D., to speak of Teamwork—Medicine and Dentistry (with lantern slides).

Dr. Leix said the object is to bring about a better understanding and harmonious consultation between dentists and physicians. It is said that medical practitioners often interfere with the dentist's work, although the physician has paid but little attention to the teeth. The diagnosis is the foundation for the specialist as a superstructure. The combined strength of the specialists attains the best results.

There are many special branches of dentistry; there is the mouth hygienist, the children's specialist, odontologist, etc. There should be a consultation in extraction of teeth for root abscesses. A tooth is estimated to be worth \$1000 and should be saved if possible. Unfortunately the patient often looks for cheap work.

B. McCollum, D. D. S., spoke on "Dentistry." Dr. McCollum said that Prof. John B. Murphy claimed that the doctor practices as the community wants him to. The public cannot distinguish between fakes and members of the dental and medical societies.

The physician should pass on a healthy mouth, but not tell the dentist how to correct defects. The object is to restore the health of the patient.

John Buckley, D. D. S., had for his subject "What shall be done with pulpless teeth."

Drs. Rosenau, Billings and the Mayos advocate that all pulpless teeth be extracted. When the physician suspects focal infection in the mouth he should refer the patient to his family dentist with the suggestions he deems wise in the case. The dentist's duty is to treat extract or make a bridge if the pulp has been put in condition. We want to do team work for our patient's health.

T. W. Brophy, M. D., on "Cleft Palate and Hare Lip" gave a stereopticon lecture. He said that the cleft palate is not due to a lack of tissue, but that the parts are all present, being simply ununited. These parts must be brought together properly first before operating on the lip. The nose must be raised. There are fourteen forms of cleft palate and these forms have many deviations and complications. How the projecting intermaxillary bone must be brought down to form the arch and all the necessary steps in the operation were beautifully presented on the screen in an admirably

scientific manner so that the whole operation seemed simple and clear.

The president suggested that because of the lateness of the hour the discussion be omitted.

Dr. Thomas moved a vote of thanks which was carried.

The regular meeting of the Pasadena Medical Society was held at the Pasadena Hospital, April 6th, 8 p. m., instead of April 13th, 1920, in order to give the members the opportunity to hear Dr. Wm. F. Braasch of the Mayo Clinic. Subject, "The Relation of Urology to the Modern Hospital."

#### Medical Programs

##### Los Angeles Clinical and Pathological Society

Regular Meeting, March 25

#### Program

1. Acute dilation of the stomach following appendectomy.....F. A. Speik, M. D.
2. Pyloric Ulcer with perforation, specimen removed at operation.....Henry H. Sherk, M. D.
3. Encephalitis Lethargica, with autopsy and pathological findings by A. H. Zeiler. Exhibition of patients with this disease..H. G. Bramer, M. D.
4. Tumor of brain, with specimen.....Geo. G. Hunter, M. D.
5. Urinary Calculi.....Leon J. Roth, M. D.
6. a. Patient showing among other reflexes, trophic disturbances of the facial muscles as a result of pulmonary tuberculosis.  
b. Patient with general Ichthyosis.....F. M. Pottenger, M. D.
7. Malignancy of the eye, treated with radium, exhibition of patient.....Frank W. Miller
8. Two cases of Hypertension Headaches, relieved by strychnia.....Ernest C. Fishbaugh, M. D.

##### Harbor Branch of The Los Angeles County

#### Medical Association

Regular Meeting, March 26.

#### Program

- "Observations on the Pupil and its Reflexes"  
.....John Franklin Campbell, M. D., Chicago  
Discussion.....J. H. McKellar, M. D.  
.....Albert W. Hiller, M. D.  
"Report of a Case of Raynaud's Disease".....  
.....W. D. Turner, M. D.  
Discussion.....Frank Mikels, M. D.

#### Symposium Society

Regular Meeting, March 31.

#### Program

- Genital Tuberculosis.....Lasher Hart, M. D.  
Urinary Tuberculosis—symptoms, pathology and diagnosis.....Leon Roth, M. D.  
Urinary Tuberculosis—treatment and prognosis.....  
.....Frank Dillingham, M. D.

##### Eye and Ear Section of the Los Angeles County

#### Medical Association

Regular Meeting, April 5.

#### Program

- Physiology of Vertigo.....  
.....Eugene R. Lewis, M. D., Philadelphia  
Clinical Substance of Vertigo.....  
.....Isaac S. Jones, Philadelphia

##### Southern California Society of Anesthetists

Regular Meeting, April 6.

#### Program

- "Present Status of the Science of Anesthesia and of Anesthetists".....Eleanor Seymour, M. D.  
"Methods of Organization to Abolish the Lay-Anesthetist".....Geo. Piness, M. D.

##### Los Angeles Obstetrical Society

A Section of the Los Angeles County Medical

#### Association

Regular Meeting, April 13, 1920.

#### Program

1. Spinal Anesthesia in Obstetrics.....Harry T. Cook, M. D.
2. The Prevention of Female Diseases.....W. O. Henry, M. D.
3. Acute Yellow Atrophy of the Liver following labor, with case report.....F. O. Yost, M. D.



**Los Angeles Surgical Society**

Regular Meeting, May 18.

**Program**

"Surgical Treatment of Carcinoma of the Breast"

.....F. K. Collins, M. D.

**PERSONALS****Doctor Off for Poland.**

Dr. Harry Plotz, typhus bacillus specialist, has sailed for Europe to supervise the work of physicians checking the plague. Ninety-five per cent. of the Jews in Poland are afflicted with typhus. Dr. Plotz served as colonel and inaugurated the steam system of delousing men to prevent the spread of infection.

**Doctor to Study Typhus Abroad.**

Dr. Fred P. Bowen of this city is on the way to France on behalf of the American Red Cross. In Europe and the Balkans he is to study means of combating the typhus epidemic for six months.

**HOSPITALS.****Los Angeles Hospitals Full.**

Dr. Harlan Shoemaker remarked April 8, that the hospitals in the city have been crowded to full capacity for eight months.

**New Hospital Campaign.**

Pasadenans have met to raise \$1,000,000 in one week to build a new plant for the Pasadena Hospital.

Dr. Charles D. Lockwood is general chairman. John S. Cravens and A. M. Andrews are vice-chairmen. Mrs. Robert J. Burdette is chairman of the women's division with Mrs. John S. Cravens and Mrs. Myron Hunt as vice-chairmen. John McWilliams, Jr., is head of the men's division.

**Phthisis Delegates.**

The directors of the Los Angeles Tuberculosis Association met April 6 and Mrs. J. J. A. Van Kaathoven presided. It was decided that Dr. Charles C. Browning, chief of the county and city work and Miss Sidney Maguire, executive secretary of the association, are to go to the National Tuberculosis Association Convention at St. Louis, April 22 to 25, in order that the subject of migratory indigent consumptives who frequent California more than any other place, and that the plan for unification of public health nursing may be duly considered.

**The University of Southern California Medical Department.**

The board of trustees of the University have decided to discontinue the medical department after the graduation of the senior class in order to meet the requirements of a Class A medical school as suggested by the American Medical Association.

From \$1,500,000 to \$2,000,000 is necessary to endow such a school with all the equipment, clinics, and faculty to make the medical department come up to the standard.

Dr. Bryson, the dean and the members of the faculty have done wonders considering the lack of funds.

The trustees are busy with the new \$600,000 administration building and the College of Liberal Arts, but they hope to develop all departments on the same scale to meet the needs of the city and tributary territory.

Dr. Geo. F. Bovard, the president of the U. S. C., says that a \$3,000,000 fund is needed as it takes about \$100,000 a year over income from tuition charges.

The students of the medical department have organized to prevent the suspension of their alma mater. The movement is headed by H. M. Karsten.

The committee of students learned from Dr. Bovard that Drs. Abraham Flexner and Mosher of the Rockefeller foundation during their visit informed the board of control that the Rockefeller Foundation idea was to establish three medical centers in the United States, one in the East, one centrally, and one on the Pacific Coast.

The students would rather continue as a class "B" college until there is money enough to raise the standard, than to have the school suspended.

The alumni of the Medical College, U. S. C., have organized to secure the necessary endowment for a class "A" college. The secretary of the Council of Education of the American Medical Association gives as a requirement an endowment fund to produce an annual income of \$25,000 above tuition payments and a teaching staff of at least fifteen.

The Merchants and Manufacturers' Association will consider the endorsement of the project and many clubs and civic organizations have promised their moral and active support.

**The Municipal Drug Clinic of Los Angeles.**

Dr. Nevius in defense of the Drug Clinic stated that the clinic, or any clinic, in fact, is not the solution of the drug evil and that the theory on which the drug clinic is supposed to work, that of a reduction of amount, has never been put into practice here. He estimated that the clinic is selling drugs to only one-fourth of all the addicts of the city. He thinks the clinic has been of value. First, some addicts have been given a desire to break themselves of the habit, and with their will to be cured, they may be helped. Second, a stop has been put to peddling in a large degree. Third, some formerly respectable men and women addicts, have been given a chance to get their morphine legitimately and still attend to business.

**MENDOCINO COUNTY.**

A regular meeting of the Society was held on April 21, 1920, at the Palace Hotel, Ukiah. The President, Dr. S. L. Rea in the chair. Members present: Drs. S. L. Rea, E. C. Griner, L. K. Van Allen, O. H. Beckman and G. W. Stout. The minutes of the previous meeting were read and approved. On motion Dr. S. L. Rea was elected alternate to the State Medical Society meeting to be held at Santa Barbara on May 11-12-13.

Committees for 1920 were appointed, the president and secretary to be ex-officio members on all committees.

Censors—Drs. C. L. Sweet, F. G. Gunn, E. C. Bennett and E. C. Griner.

Program—Drs. G. W. Stout, F. M. L. Campbell, L. K. Van Allen.

Ways and Means—Drs. H. Peddicord, H. H. Wolfe, R. A. Babcock.

Joint meeting with the N. W. P. R. S. Association—Dr. G. W. Stout, E. C. Griner, H. H. Wolfe.

On Lake County—Drs. F. G. Gunn and R. H. Hunt.

It was also resolved to get more interest in the meetings by clinics, etc., and to try if advertisements could be procured for Bulletin so as to be able to secure funds sufficient for its publication and make it the property of the Society.

A banquet preceded the meeting. Dr. S. L. Rea was the host.

**ORANGE COUNTY**

The annual meeting of the Orange County Medical Society was held at James Cafe at Santa Ana on Tuesday evening, May fourth. The members with their wives sat down to a banquet at eight o'clock after which the retiring president, Dr. J. M. Tralle, read an address entitled "Reconstruction." The paper was interesting and instructive and dealt with the subject in a very broad manner.

Dr. C. C. Violett was appointed installing officer and in his usual pleasing manner installed the officers for the ensuing year.

With Dr. J. L. Dryer as toastmaster the balance of the evening was spent in listening to toasts from several of the members and short addresses from Drs. Hurst and Griswold of the University Hospital at Seoul, Korea. The speeches of the

evening were interspersed with election returns from different parts of the State, some genuine and some not. The latter adding to the enjoyment and perturbation of some of the members present.

At a late hour the meeting broke up with all joining in singing "America" and each and all felt that the Orange County Society had experienced one of its most successful annual meetings.

#### SACRAMENTO COUNTY.

The regular monthly meeting of the Sacramento Society for Medical Improvement was held in the Sacramento Hotel, Tuesday evening, April 20.

Dr. Schopf reported a case of the unusual "mycosis fungoides." Dr. Gundrum reported a case, who had confused some head-ache powders with calomel powders (the latter of which she had been ordered to take one every hour) and in the course of twelve hours, had administered to herself, 48 grains of acetanilid and 37½ grains of phenacetine; aside from a marked cyanosis, nothing wrong was noted, the heart and blood-pressure remaining normal. Dr. Pitts reported a case of dextrocardia with transposition of the viscera (as shown and proved by the X-ray), with the liver on the left, spleen on the right, pylorus and appendix on the left side. Dr. James reported several cases of tracheal diphtheria occurring in the last few months, where the throat was clinically negative, but culture taken from a tracheal swab, proved positive; he emphasized the need in all cases of obstructed breathing, to have a culture taken from the vocal cords or trachea below.

The subject of the evening was on "chest roentgenology," with numerous lantern slides, by Dr. Harold Zimmerman, whose experiences as a special worker in X-ray had been abundantly enriched by his connection with the Letterman General Hospital as roentgenologist, during the period of the war and immediately thereafter; among the plates shown and demonstrated, were sarcoma and primary carcinoma of the lung; foreign bodies in the Bronchi; Pneumoconiosis; dermoid Cysts; cervical rib; various forms and in all stages, of Tuberculosis at the Hylum, peribronchial and alveolar areas; pneumothorax and hydro-pneumothorax; demonstrations of the difference between the pictures of the heart and mediastinum of children and adults; various anomalies of development; cotton seed oil, Acacia, and bismuth mixture for the tracing of cavities proved to be more efficient in Army service, than the usual form of Beck's Paste.

Doctors Christman, Bell and Beauchamp were elected to membership in the Society.

#### PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY

During the month of April, 1920, the following meetings were held:

##### Tuesday, April 13—General Meeting

1. The truth about osteopathy.—Emmet Rixford.
2. Eddies of Eddyism.—Mr. Celestine J. Sullivan.

##### Tuesday, April 20—Section on Surgery

1. The second great type of chronic arthritis.—(Illustrated)—L. W. Ely.

and

Dental conditions in these cases.—J. L. Campbell, D. D. S.

2. The open air treatment of wounds.—H. M. Sherman.

##### Tuesday, April 27—Section on Eye, Ear, Nose and Throat.

Symposium on Focal Infection.

1. Demonstration of cases.
2. Stock taking in mouth infections.—(Illustrated)—J. G. Sharp.

3. Relation of focal infection to internal medicine.—Lovell Langstroth.

4. Relation of focal infection to ophthalmology.—W. S. Franklin.

5. The ear, nose and throat as foci of infection.—Harvard McNaught.

#### SAN JOAQUIN COUNTY

The regular monthly meeting of the San Joaquin County Medical Society was held on Friday evening, April 9th, at the Hotel Lincoln. In the absence of the president, first and second vice-presidents, Dr. E. A. Arthur presided. Those present were: Drs. E. A. Arthur, J. T. Davison, C. D. Holliger, W. T. McNeil, C. R. Harry, R. T. McGurk, J. P. Martin, Mary Taylor, Minerva Goodman, Hudson Smythe, Margaret Smythe, F. S. Marnell, B. J. Powell, D. R. Powell and Dr. Howard Ruggles of San Francisco as guest and speaker of the evening.

Dr. C. R. Harry presented an interesting case of Myxedema which is doing very nicely on Thyroid extract but who has the greatest reaction within a week's time when such treatment is discontinued. The doctor also displayed an unusually large gall stone which was of interest because it had been entirely overlooked at the time of the operation and had appeared spontaneously through the drainage wound several weeks later.

The speaker of the evening, Dr. Howard Ruggles, was next introduced and gave an interesting paper on "Lung Tumors." The doctor showed on the lantern screen many typical cases of tumors of the mediastinum and lung and also showed some of the X-Ray plates demonstrating these typical conditions. The paper was discussed by Dr. McGurk and Dr. Holliger and as there was no further business the meeting adjourned to enjoy a light luncheon.

## Correspondence

### WHAT ONE READER THINKS.

Los Angeles, April 23, 1902.

To the Editor: For the first time in over two years, I received a copy of your valuable Journal, viz., the April 1920 number and I want to slip along a little note of appreciation. Although I have been receiving it since about 1912 or '13, and knew it was an excellent Journal, I did not fully appreciate just how good it really was. I might name all the articles (in fact it is hard to pick out any of them) but the ones entitled "Ouija Boards and Cult Cures," page 114; "Chiropractors Defy Law," page 115; "The Lady and The Tiger," page 116; "Cui Bono," page 131, shows that "somebody is doing some thinking along up-to-date and down-to-the-minute lines."

All I can do just now is to send in my little opinion and say "Let the good work go on," and try to express to you how much the Journal is appreciated at this office.

Cordially and sincerely yours,

FRANK A. WOODWARD, M. D.

### DIET IN HAY FEVER

Cloverdale, Calif., April 29, 1920.

To the Editor:—I wish to report to you the results of several years of careful observation in the relief of hay fever (so called) which as we all know is caused by the pollen of certain grasses, plants and trees. This pollen is a highly concentrated vegetable protein substance readily soluble upon and absorbable by the mucous membranes of humans.

About 90% of all cases of so-called hay fever, rose cold, hay asthma, etc., may be relieved without medicine externally or internally by a rigid adherence to a proper diet. The phenomena of



hay fever is a constitutional reaction with local manifestations due to toxication by the absorption of pollen, a vegetable protein in a system already supersaturated with the animal and vegetable proteins.

The proofs of these observations have been checked up by having those who have suffered and been relieved by proper dietary measures, eat a meal rich in animal and vegetable proteins and within two to six hours' time the symptoms of hay fever would again become manifest if exposed to the offending pollen. These experiments have not only been proven on a goodly number of patients but on myself as well.

The directions given to patients, unless there be marked indication for a calomel purge or other eliminative treatment, is totally to abstain from medicine and all animal food such as beef, mutton, lean pork, veal, game, poultry, fish, shell fish, eggs, cheese and vegetable proteins to be found in dried beans, peas and lentils and the starch of potatoes.

These patients are told to eat all they require of rolled oat, wheat, graham or corn meal mush, graham bread, biscuits or muffins, corn bread, whole wheat bread with butter, all fresh or cooked fruits, orange, lemon or pomelo juice, salads, vegetable soups, greens and all fresh vegetables including green peas and string beans, fresh or canned; a little fat bacon may be used to flavor the vegetable dishes. Milk, tea or coffee may be taken in moderation if there is no contraindication.

A perfect system of diet can be given the patient so that a sufficient quantity and variety may be had to sustain life and render the patient free from the distressing symptoms of hay fever. This diet system will also help many cases of spasmodic asthma which are often due to auto-intoxication or protein anaphylaxis.

After a patient has been completely relieved, animal foods may again be taken in small quantities to test the patient's tolerance for protein; some are able to take more and other less while still others are unable to take any.

In offering this it is with the hope that other physicians may try and report the results of their observations that mine may be proved or disproved.

Yours fraternally,  
W. C. SHIPLEY, M. D.

## Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.  
Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

### YOU MUST RENEW YOUR FEDERAL NARCOTIC LICENSE DURING JUNE.

The Council on Pharmacy and Chemistry was created because the complexity of modern medicine makes it a physical impossibility for physicians to know the scientific status of the many proprietary remedies which are on the market. As commercial agencies, such as Bradstreet and Dun report on the commercial probity of individuals and firms, so the Council on Pharmacy and Chemistry reports on what might be called the scientific probity of proprietary and unofficial pharmaceutical remedies.

STANNOXYL has been refused admission to N. N. R. on the ground that its claims are unwarranted. Stannoxyl is a preparation of Stanous

oxide and tin. It has been noted that tin workers are apparently immune from boils and this led French investigators to the conclusion that tin might be a specific for Staphylococcal infection.

PLATT'S CHLORIDES have been refused admission to N. N. R. Platt's Chlorides consist of a solution of aluminum salts with zinc chloride and a little mercuric chloride. It may have some virtues when applied directly but certainly is absolutely inert when allowed to evaporate in a room for the purpose of disinfecting a room. What evaporates is merely water and there is no chlorine action as one might be led to believe from the label, etc.

MINERAL WATERS: The United States Department of Agriculture has condemned a number of American Mineral Waters most of which are apparently not sold on this Coast. Some of the Mineral Waters were found to be infected bacteriologically while others were not what they claimed to be. The physician should be careful before ordering any new Mineral Water to see that it has been thoroughly tested chemically and bacteriologically.

CHLORON, CHLORAX AND No. 3 are preparations which have not, as yet, reached California but are probably on the way. They have been found to do what they claim and to be injurious to the extent of depriving the patient of much needed medication.

ELARSEN has been omitted from the N. N. R. as it was found to have no advantage over Fowler's solution and its claims are not justified.

## Medicine Before the Bench

In this column will appear with appropriate comment, from month to month, court decisions and proceedings affecting the various phases of medical practice, the conduct of hospitals and the enforcement of public health laws.

### DR. F. J. PETR WINS SUIT.

In the May issue of the JOURNAL a brief reference was made to a suit for damages brought in Judge Pulcifer's court against Dr. F. J. Petr of Oakland. The complainant was S. Barranco, the husband of Marie Barranco, who alleged that Dr. Petr, whilst acting for the North American Hospital Association, performed an unnecessary abortion on Mrs. Barranco.

The evidence adduced established the following points:

That Dr. Petr was called to treat the patient, who was the plaintiff's wife, and found her suffering pain in the region of her uterus; that upon examination he found membrane protruding from the uterus into the vagina; that the patient told him that she had been pregnant for some six weeks, but that he diagnosed the pregnancy as being one of about about four months; that the doctor put the patient to bed, prescribed rest, and left a prescription to be filled by a druggist, and left instructions to call him at once in case of need; that the doctor first visited the patient about 8 o'clock in the morning and visited her again about 4 o'clock p. m. on the same day; that upon the second occasion he made further examination with the assistance of a speculum and verified his opinion as to the age of the pregnancy; that he found that the miscarriage was already in course of taking place, although very gradually and that the woman had a similar occurrence some six or eight months before; that the doctor after advising the patient

and her husband that the child could not be saved, tamponed the patient and came to see her again early the following morning, at which time he found her in about the same condition, and removed the tampon. There was no hemorrhage at any time during his treatment. He returned to his patient again on the afternoon of the second day, and found her in about the same condition, leaving her about 5 o'clock. The physician, it will be seen, was visiting the patient twice a day. About half past six a miscarriage took place and the ovum was expelled through natural causes. Another physician was summoned, who being innocent of the fact that Dr. Petr had been in attendance, took the patient to the hospital, where a curetment was had. The patient remained at the hospital three or four days and then was taken home. She seemed to have made a comparatively good recovery. It developed at the trial that a day or so before she first sent for Dr. Petr, the defendant, that she had seen an Italian, whose face had been severely cut and whose head was very bloody, and that she attributed her unfortunate condition to that fact.

There was substantially no conflict in this evidence. Dr. A. M. Smith testified in the case that Dr. Petr's treatment was standard and that he had omitted nothing that should have been done. Judgment was rendered in favor of Dr. Petr.

## Medical Items in California Press

### OSTEOPATHIC OPERATION

Dr. Linwood Dozier, Health Officer of Stockton, refuses to honor a death certificate filed by J. C. Rule, Osteopath, showing that a ten-year-old "infant" died after suffering with peritonitis and appendicitis for which an operation had been performed. Dr. Dozier holds an osteopath has no right to perform such an operation.—Stockton "Record."

### OSTEOPATH USES DRUGS

Dr. William T. Harlan, an osteopath of Arbuckle, California, plead guilty before the Board of Medical Examiners February 18, 1920, to the charge of using drugs and writing prescriptions, and his certificate was revoked on the grounds that his certificate to practice osteopathy does not permit the use of drugs.—Los Angeles "Record."

### CHINESE DOCTOR CONVICTED

T. Wah Hing, a Chinese herb doctor of Sacramento recently convicted of practicing in violation of the Medical Act, was arrested February 13, 1920, by the Board of Pharmacy, and drugs valued at over \$5,000.00 were seized. It is stated the Federal authorities will prosecute him under the Federal Narcotic Act.—Sacramento "Bee."

### CORONER'S JURY DISAGREES

A coroner's jury impaneled in San Jose to investigate the death of Mrs. V. L. Hill, who died in Palo Alto while attended by a Christian Science practitioner, and without the attendance of a physician, refused to bring in a verdict.—San Jose "Mercury-Herald."

### CHINESE DOCTORS ARRESTED

Poo On and N. S. Sue, Chinese herbalists of Modesto, arrested January 19, 1920, by the Board of Medical Examiners charged with practicing medicine without a license. Bail in the amount

of \$250.00 each secured their release. This is their second arrest on the same charge within the past few months, Sue having paid a fine of \$250.00 while the trial of Poo On is set for February 25, 1920.—Modesto "News."

### LICENSE REVOKED

The license to practice medicine and surgery in California heretofore held by William F. Thompson of Oakland, was revoked by the Board of Medical Examiners, February 19, 1920, on the charge of having performed a criminal operation.

### GUILTY OF PRACTICING WITHOUT A LICENSE

Rose Trattner was fined \$300.00 and given a ninety days' suspended jail sentence before Police Judge Richardson in Los Angeles, February 7, after having been found guilty of practicing medicine without a license.—Los Angeles "Examiner."

## State Board of Medical Examiners

### REGULAR MEETING. LICENSING EXAMINATION.

Los Angeles, California, February 16, 1920.

#### **PATHOLOGY AND BACTERIOLOGY.**

LEMUEL P. ADAMS, M.D.

February 17, 1920.

#### **Physicians and Surgeons.**

(Answer ten questions only)

1. Given a patient suffering from an acute pneumonia suspected of being due to infection with the *Bacillus Pestis*, describe in detail the laboratory performances necessary to make a definite diagnosis.
2. How do bacteria produce disease?
3. Give an explanation of Erlich's receptors of first, second and third orders and briefly discuss the functions of each.
4. Give the gross features of one anatomic variety of bronchiectasis.
5. How does the *Tetanus bacillus* cause disease? What kind of wounds favor the development of Tetanus? Discuss the value of Tetanus Antitoxin in the treatment of tetanus infection.
6. What is acidosis? Give the laboratory methods for determining same.
7. Give the gross morphological changes found at autopsy in the body of an individual dead of plague.
8. (a) Give four diseases in which a leucopenia is the rule.  
(b) Give the blood picture in detail in leukemia.
9. Give differential diagnosis in the gross between early carcinoma of the cervix and cervical chancre.
10. What are the causes of enlarged spleen? Describe in detail the gross and microscopic pathology of one of these.
11. What is an infarct? Give types and describe the formation of each.
12. Give urinary findings of (1) acute parenchymatous nephritis, (2) chronic interstitial nephritis.

#### **PATHOLOGY AND ELEM. BACTERIOLOGY.**

#### **Drugless Practitioners.**

Feb. 17, 1920

(Answer ten questions only)

1. How do bacteria produce disease?
2. State how a benign tumor may prove a menace to health.
3. Define Ludwig's angina: abscess; carbuncle; fistula; sinus.
4. (a) Name four pyogenic bacteria.  
(b) Give method of hand asepsis.



5. Name four of the common intestinal tape worms.
6. State urinary findings in Diabetes Mellitus and Chronic Interstitial Nephritis.
7. Give bacteria commonly found in (a) bladder infections; (b) in kidney infections.
8. Give the etiology of acute lobar pneumonia; endocarditis.
9. Give the blood findings in Typhoid Fever.
10. Give causes of puerperal sepsis.
11. Name five pathogenic cocci.
12. Give the general characteristics of sarcomata.

#### HYGIENE AND SANITATION. Drugless.

HARRY E. ALDERSON, M.D.

LEMUEL P. ADAMS, M.D.

Feb. 18, 1920

(Answer ten questions only)

1. Discuss the quarantine of varicella.
2. Discuss the differences between variola and varicella.
3. Discuss prevention of the spread of syphilis.
4. Discuss the effects of (a) Turkish bath, (b) Russian bath.
5. Define "hygiene and sanitation."
6. How is bubonic plague contracted?
7. Discuss the physiological effects of general massage.
8. Why do miners contract tuberculosis?
9. Name five diseases that may be conveyed by milk.
10. Discuss the proper dietary for a person of eighty years in good health.
11. What is certified milk?
12. Discuss the prevention of botulism.

#### HYGIENE AND SANITATION.

Physicians and Surgeons.

HARRY E. ALDERSON, M.D.

Feb. 18, 1920

(Answer ten questions only)

1. Discuss venereal prophylaxis.
2. Discuss the prevention of infection with the treponema pallidum.
3. Discuss the proper arrangement of latrines and wells on a small farm.
4. Discuss the prevention of pneumonic plague.
5. Discuss the preparation of food for a normal infant eight months old.
6. Discuss the role of pediculi as disease carriers and effective methods of combating the same.
7. Discuss the prevention of the spread of scabies.
8. Discuss the advantages and disadvantages of the cubicle system in hospitals.
9. Discuss the effects of ascending to high altitudes (20,000 feet) rapidly.
10. Discuss the methods by which drinking water of unknown origin may be proven fit for human consumption.
11. Discuss briefly conditions that favor the development of occupational dermatoses.
12. Discuss the proper ventilation of a lecture room seating one hundred individuals.

#### HYGIENE AND SANITATION

Midwives

HARRY E. ALDERSON, M.D.

Feb. 18, 1920

(Answer ten questions only)

1. Discuss the care of new born infant's skin.
2. What is ophthalmia neonatorum?
3. Discuss the feeding of a new born baby in case the mother is dead.
4. How often should a healthy pregnant woman in the third month bathe?
5. What measures should be carried out with a woman whom you suspect of being syphilitic?

6. What would you do if called to attend a woman in the first stages of labor?
7. How should a sick room be ventilated?
8. How would you sterilize the skin?
9. At what age, under what conditions and how is one most liable to contract tuberculosis?
10. How would you sterilize blankets?
11. Name three water-borne diseases.
12. What diseases may be transmitted by careless midwives?

Feb. 19, 1920.

#### OBSTETRICS AND GYNECOLOGY

Physicians & Surgeons and Drugless Practitioners

HARRY V. BROWN, M.D.

(Answer ten questions only)

1. Describe briefly and make sketch of operation for repair of complete laceration of perineum.
2. Give the absolute indications for Caesarean operation.
3. Give the important normal diameters of the female pelvis.
4. Give treatment of breasts following delivery at six months.
5. Discuss Phlemasia Alba Dolens.
6. Discuss Syphilis and effect on mother and child.
7. Give the etiology, diagnosis and treatment of tuberculosis of the fallopian tubes.
8. Give diagnosis and course of tubal pregnancy.
9. Give etiology and treatment of irritable bladder.
10. Discuss uterine fibroid.
11. Describe in detail one operation for correction of retroversion.
12. Differentiate diagnosis between T. B., Carcinoma and cystic degeneration of cervix uteri.

Feb. 19, 1920.

#### OBSTETRICS

Midwives

HARRY V. BROWN, M.D.

(Answer ten questions only)

1. (a) What is the bag of waters?  
(b) What is dry labor?
2. (a) Give technique of preparation of patient for delivery.  
(b) Give technique of preparation of operator's hands in delivery.
3. (a) What is meant by presentation?  
(b) Name five chief presentations.
4. What are some of the diseases incident to pregnancy?
5. What accidents may occur which will terminate pregnancy before term?
6. (a) What is Septic infection?  
(b) How prevented?
7. What is procedure in a case of asphyxia neonatorum?
8. Mention five conditions which may be taken for pregnancy.
9. What are the stages of labor?
10. How long would you wait upon nature after complete dilation of the cervix for delivery?
11. What is the duration of pregnancy?
12. What is the diagnosis of the death of the foetus?

Feb. 19, 1920

#### MATERIA MEDICA, THERAPEUTICS, PHARMACOLOGY AND PRESCRIPTION WRITING

For Physicians and Surgeons

ROBT. A. CAMPBELL, M. D.

(Answer ten questions only)

1. Discuss the administration of ether for anesthesia.
2. Given a patient suffering from surgical shock; treat the case.
3. Discuss the starvation treatment for Diabetes Mellitus.

4. Discuss the treatment of hemorrhage in a hemophilic patient.
5. Write a prescription for Vesical tenesmus with burning and dribbling of urine in an old person (a) with acid urine; (b) with alkaline urine.
6. Give dosage, chief physiological action, and from what are the following derived: (a) atropine, (b) strychnine, (c) Heroin, (d) Pituitrin, (e) Hyocine.
7. Given a case of Influenza with fever, inflamed eyes, general body pains, headache and hard dry cough. Treat the case. Be explicit.
8. Give symptoms, diagnosis and treatment of Laryngeal Diphtheria.
9. Gastric Spasm. Discuss etiology, pathology and treatment.
10. Outline symptomatology produced by Ipecac when given to full physiological effect.
11. A child six years old has severe carache, pain and tenderness over mastoid, bulging and inflamed drum membrane and posterior canal wall, temperature 103. Treat the case.
12. What is Tetanus antitoxin? How is it obtained? When should it be used and in what dosage?

Feb. 17, 1920

**PHYSIOLOGY**

For Physicians & Surgeons and  
Drugless Practitioners

DR. C. J. GADDIS

(Answer ten questions only)

1. Define hemolysis, blood platelets, ferments, erythrocytes.
2. Name, locate and give functions of three ductless glands.
3. Where may a central lesion of the nervous system be located to involve the motor innervation of left arm?
4. Give the metabolism of
  - (a) proteids,
  - (b) carbohydrates,
  - (c) fats.
5. Discuss the mechanism and physiology of vomiting.
6. Name the principal centers of organic function in the medulla.
7. Discuss the mechanism and physiology of menstruation.
8. Give the origin, pathways and functions of nerves supplying heart.
9. Discuss briefly functions of epithelial tissue.
10. Discuss briefly the physiological rise in temperature, rapid heart and respiration in pneumonia.
11. Name and describe three tendon reflexes.
12. What is the location and function of the "Islands of Langerhans," and how is the metabolism of the body affected by their extirpation?

Feb. 18, 1920

**GENERAL DIAGNOSIS**

Drugless Practitioners

WM. R. MOLONY, M. D.

(Answer ten questions only)

1. Differentiate lobar pneumonia from pleurisy with effusion.
2. Differentiate small-pox from chicken-pox.
3. Give remote symptoms resulting from flat foot.
4. Discuss tachycardia.
5. Discuss diagnosis of tubercular meningitis.
6. Discuss diagnosis of acute endocarditis in a child under age 10.
7. Give diagnosis of synovitis with effusion.
8. Discuss etiology and diagnosis of acute pyelitis.
9. Upon what clinical signs would you base a diagnosis of acute pulmonary oedema.

10. Take a case of chronic mitral regurgitation: What symptoms and clinical signs result from decompensation of this lesion?
11. Discuss possible clinical signs and symptoms resulting from caecal stasis.
12. Discuss etiology of asthma.

Feb. 18, 1920.

**GENERAL MEDICINE**

Physicians &amp; Surgeons

WM. R. MOLONY, M. D.

(Answer ten questions only)

1. Discuss diagnosis of acute endocarditis in a child under age ten.
2. Give diagnosis and management of a case of tubercular meningitis.
3. Give diagnosis and principles of management of a case of pyloric stenosis in an infant in which the stenosis is half hypertrophic and half functional.
4. Discuss management of a case of chronic pleurisy with effusion.
5. Give diagnosis of synovitis with effusion in a child of 12 years of age.
6. Discuss etiology and diagnosis of acute pyelitis.
7. Give management of a case of acute pulmonary oedema.
8. Give management of a case of chronic hypertension in a woman of forty.
9. Give management of a case of decompensated mitral regurgitation.
10. Discuss possible clinical signs and symptoms resulting from caecal stasis.
11. Give management of acute lobar pneumonia.
12. Discuss etiology of asthma.

Feb. 19, 1920

**SURGERY**

P. T. PHILLIPS, M. D.

(Answer ten questions only)

1. Give indications for tonsillectomy.
2. Give symptoms and treatment in detail of perforated duodenal ulcer.
3. Give indications for enucleation of eye ball.
4. Discuss treatment of acute empyema.
5. Give indications for (a) cholecystostomy, (b) cholecystectomy.
6. Give differential diagnosis between staphylococcus and streptococcus infections.
7. Give etiology, symptomatology and treatment of acute pyelitis.
8. Enumerate conditions arising from injuries to sesamoid bones, their diagnosis and treatment.
9. Outline treatment of fracture of inferior maxillary bone, between second bicuspid and first molar.
10. Give diagnosis and treatment of congenital dislocation of hip joint.
11. Discuss the various post-operative positions of patient and reasons for their use.
12. Discuss radium treatment of malignancy.

Feb. 17, 1920

**ANATOMY AND PHYSIOLOGY**

For Midwives

ALFRED J. SCOTT, M. D.

(Answer ten questions only)

1. Name the secretions of the alimentary canal and give the functions of each.
2. Describe the normal pulse in infancy, youth, and adult age.
3. Give the relative food value and ease of digestion of meat, eggs, milk, and starches.
4. In a normal person what is the pulse rate, respiration, temperature?
5. What do you understand by the term nutrition; digestion?
6. What are the uses of perspiration?
7. How would you prepare food for rectal feeding?



8. Name the contents of the abdomen of a female.
9. What effect has gastric juice on fats; starches?
10. Define secretion, excretion, assimilation.
11. Mention some exercises that injuriously affect the heart.
12. What is the normal ratio of respiration to heart pulsation?

Feb. 18, 1920

#### ELEMENTARY CHEMISTRY & TOXICOLOGY Druggist Practitioners

DAIN L. TASKER, D. O.

(Answer ten questions only)

1. What is a chemical symbol? Give the symbols of ten elements.
2. What chemical elements are found as a part of the human body?
3. Name two compounds which pass through the body unchanged.
4. What is the significance of sugar in urine?
5. Give the characteristics of hydrochloric acid and tell where it is produced in the human body.
6. Discuss the use of the stomach pump and stomach siphon in cases of poisoning.
7. Discuss the use of soap, starch and albumin as antidotes in poisoning.
8. Treat a case of carbolic acid poisoning.
9. What should be done in a case of poisoning when the nature of the poison is unknown?
10. Mention two substances which poison by being inhaled.
11. What is the best antidote for serpent venom?
12. Treat a case suffering from poisoning by bichloride of mercury.

Feb. 18, 1920

#### CHEMISTRY AND TOXICOLOGY Physicians & Surgeons

DAIN L. TASKER, D. O.

(Answer ten questions only)

1. What elements are included in the chlorin family? Name two compounds of each of these elements used in medicine.
2. Discuss the medical uses of sulphur.
3. Give five metals whose compounds are used in medicine. Give an example of each.
4. Discuss the toxicity of methyl alcohol and its treatment.
5. State the toxicological effect of carbolic acid and its proper treatment.
6. Select the five most important reagents for urine analysis outfit and state why you selected each.
7. Give characteristics of diabetic urine.
8. Name three of the common chemical sediments that may appear in urine, giving the pathological significance of each.
9. In what principal form is nitrogen eliminated from the body? Give the chemical properties of nitrogen.
10. What should be done in a case of poisoning when the nature of the poison is unknown?
11. Mention two substances which poison by being inhaled. Name two narcotic poisons.
12. What is meant by the terms mechanical antidote and chemical antidote? Give examples of each.

### New Members

Cowan, J. R., Los Angeles; Andrews, H. J., Los Angeles; Keller, P. M., Los Angeles; Ruth, R. F., Los Angeles; Drennan, Pauline, Oakland; Hall, Channing, Oakland; Liliencrantz, A., Oakland; Gardner, Geo. A., Pasadena; Wheelis, J. M., Los Angeles; Rothrock, F. B., Pasadena; Ritchey, Romney M., Los Angeles; Caldwell, C. B., Monrovia; Hammock, Roy M., Los Angeles; Cunnane, Philip J., Los Angeles; Zbinden, David B., Artesia;

Grundy, Gordon M., Long Beach; Karshner, Rolla G., Los Angeles; Welbourn, Leland S., Van Nuys; Haworth, W. L., Los Angeles; Rice, H. W., Ocean Park; Rea, Ralph R., Los Angeles; Craik, C. W., Venice; Weltman, Carl G., Los Angeles; Nuttall, John P., Venice; Hannah, Ward, Long Beach; Fricke, Albert A., Los Angeles; Forline, Hamilton, Los Angeles; Furst, Oliver J., Los Angeles; Langan, A. J., Los Angeles; Eaton W. H., Pomona; Martin, Harry W., Los Angeles; Eisen, Edward G., Los Angeles; White, Wendell, Los Angeles; Lewis, Silas A., Los Angeles; Leadsworth, John R., Los Angeles; Ruddock, John C., Los Angeles; Grover, Arthur L., Los Angeles; Frizzell, Rex R., Pasadena; House, L. C., El Centro; Apple, W. W., El Centro; Elliott, A. E., El Centro; Heffernan, W. T., El Centro; Brooks, C. S., El Centro; Tillmanns, E. G., Calexico; Moody, Egbert E., Los Angeles; Parker, John L., Brawley; Dunham, O. B., Brawley; Le Baron, Eugene, Brawley; Mosher, Walter F., Holtville; Owen, C. C., San Bernardino; Johnson, Oscar F., Sacramento; Kreutzmann, Henry A. R., San Francisco; McMurdo, Percy F., San Francisco; Tranter, Charles L., San Francisco; O'Connell, Daniel P., San Francisco; Gilcreest, Edgar L., San Francisco; Ingber, Irving S., San Francisco; Burrows, Robert, San Francisco; Rhodes, George K., San Francisco; Means, Philip C., Santa Barbara; Soper, Alexander C., Santa Barbara; Nagelman, C. B., Santa Barbara; Newton, Frances L., Woodland; Martin, Henry S., Petaluma; Ward, E. K., Newman; Bemis, Orin I., Riverbank; Munch, Louise L., California Hot Springs; Ehlers, Henry, Fowler; Tobin, P. A., Fresno; Owen, Jr., J. A., Red Bluff; Hoyt, H. M., Pacific Grove; Dole, Kenneth L., Redlands; Lee, Dorothea, San Jose; Kneeshaw, Robert S., San Jose; Pinninger, S. E. D., Sunnyvale; Dobson, Geo. H., Santa Ana; Ewing, Edgar E., Huntington Beach; Mayes, W. C., Santa Ana; Williamson, Mary C., Upland; Bailey, LeRoy H., Dinuba; Larson, C. E., Sausalito; Stammers, C. L., Selma; McLain, L. C., Bakersfield; Thomas, Llewelyn L., Portola.

Through a clerical error the name of Dr. W. P. Willard, 177 Post St., San Francisco, was omitted from the Roster of Members of the Medical Society who were members in good standing at the time of going to press on April 1st. Dr. Willard is a perfectly good and faithful member and has been for many years.

### Resigned

Fagin, E. A., Los Angeles.

### Transferred

Brodrick, R. G., San Francisco Co. to Alameda Co.; Anderson, C. W., Los Angeles Co. to Imperial Co.

### Deaths

CHILSON, WM. C.—A graduate of Medical Department, University of California 1902. Licensed in California 1902. Died in Fresno March 10, 1920. Was a member of the Medical Society, State of California.

MARTIN, WM. A.—A graduate of the University of Louisiana 1874. Licensed in California 1889. Died in Letterman General Hospital, San Francisco, April 4, 1920. Was a retired Navy man.

TAYLOR, H. N.—A graduate of Bellevue Hospital Medical College, New York 1898. Licensed in California 1907. Died in Maricopa, Cal., March 3, 1920; age 46. Was a member of the Medical Society, State of California.

Note—The following minimum Fee Schedule was adopted by the Society at the Santa Barbara meeting on May 11th, 1920. It has been accepted by the Industrial Accident Commission and by the Insurance Carriers. It represents a general increase of over 27% and is in effect June 1st, 1920.

## FEE SCHEDULE

FOR

### PHYSICIANS AND SURGEONS

Presented by

THE COMMITTEE OF THE COUNCIL OF THE MEDICAL  
SOCIETY OF THE STATE OF CALIFORNIA

for the

TREATMENT OF INDUSTRIAL ACCIDENT CASES  
COVERED BY THE WORKMEN'S COM-  
PENSATION LAW

#### NOTE A

### THESE FEES REPRESENT A MINIMUM!

FEES HIGHER THAN SCHEDULE WILL BE ALLOWED  
WHEN WARRANTED BY UNUSUAL DIFFICULTIES OR REQUIR-  
ING AN UNUSUAL AMOUNT OF TIME.

#### NOTE B

Unusual cases and procedures not specified will entitle the surgeon to a fee the same as that for specified procedures of approximately equal magnitude.

#### NOTE C

Bills must be itemized, showing date of each visit, dressing or operation, and the charge for the same. Charges higher than minimum must be itemized and amply justified by clear explanation.

#### NOTE D

The Schedule here presented is designed for use in connection with medical services rendered an individual with an average earning capacity of \$1,250 per annum. To this class belongs the average individual which the Workmen's Compensation, Insurance and Safety Act is intended to cure and relieve.

#### NOTE E

The restoration of function is considered more important than appearance. It is the duty of the surgeon to restore function.

#### NOTE F

X-ray examination is exacted in all cases of bone injury and doubtful bone injury.

#### NOTE G

A special physical examination and report on a special blank furnished for that purpose will be made when requested by employer, insurance carrier or Industrial Accident Commission. The surgeon should state in his first report of accident whether or not in his judgment a special examination is advisable.

It is suggested that a special examination may be required in selected cases as follows:

1. Persons over 60 years of age.
2. The infirm or those of poor physique.
3. Injuries to head or thorax or abdomen.
4. Serious injuries of any kind.
5. Injuries which may involve nerves.

Immediate examination for nerve integrity in parts beyond site of fracture, dislocation or other injury is necessary in order to detect such complication at earliest possible time.

N. B.—Approximately 50 per cent of all injuries involve the fingers only. Such cases will probably not require general physical examination. The surgeon will make a recommendation for a special examination when necessary in regard to these and other uncomplicated injuries. For this special examination a fee of \$5 will be allowed.



First visit, including report and first examination, in injury not provided for below	\$2.50
or, including report and special examination as provided in Note G	\$5.00
Surgical dressings (materials)	Specify costs
Mileage beyond city limits	75c day, \$1.00 night, one way per mile.
Assisting at operation—	
Major	\$12.50
Minor	6.00
Administering general anaesthetic	5.00 to 10.00
Testimony before Commission	12.50

Subsequent visits

Hospital

or

Operations Home Office

**Fractures**

Reduction and first dressings—			
Nasal bones	\$12.50		
Metacarpal or metatarsal bone	7.50		
Phalanx	5.00		
Carpal or tarsal bone	7.50		
(For operative procedures special fees)			
Forearm—leg, 1 bone	12.50		
2 bones	30.00	\$1.75	\$1.25
Femur or humerus	40.00		
Clavicle or scapula	20.00		
Patella	20.00		
Mandible or maxilla	20.00		
Pelvis	25.00		
Ribs	6.00		

For compound or comminuted fractures or fractures involving joints, add fifty per cent to this list to find **minimum** fee.

For bone plating or bone splinting or inlay (when authorized) three times fee for simple fracture.

**Dislocations**

Fees according to magnitude and time consumed	\$1.75	\$1.25
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**Sprains**

Fees according to magnitude and time consumed	\$1.75	\$1.25
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**Amputations**

Finger or toe	\$7.50		
Two fingers or toes	12.00		
Hand, wrist, forearm or arm	30.00		
Shoulder disarticulation	50.00	\$1.75	\$1.25
Foot, ankle or leg	30.00		
Knee or thigh	75.00		
Hip disarticulation	100.00		

**Special Operations and Procedures**

Subsequent visits

Hospital

or

Operations Home Office

Trephining or resection of skull	\$ 60.00		
Laminectomy	100.00		
Hernia, radical operation	40.00		
Hernia—by taxis	} According to difficulty and to time consumed		
Hernia—by reduction and applying truss			
Paracentesis, thoracis	10.00		
“ pericardii	25.00		
Tendoplasty (depending on magnitude of operation, number and depth of tendons, whether recent or old and on tissues lost)		\$1.75	\$1.25
Burns, involving 1 hour attendance	25.00		
Cataract operation,	50.00		
Detention per hour with patient	6.00		
Giant magnet use (In accordance with difficulty and time consumed)			
Laparotomy (in accordance with difficulty and time consumed)			
Semilunar cartilage removal	50.00		
Catheterization of urethra	5.00		

**Eye Operations**

Removal of foreign body from conjunctiva (one or more)	3.00	1.75	1.25
Removal of foreign body from cornea	5.00		
Enucleation of the eye	40.00		

**Minor Operations**

(Fees according to magnitude and time consumed.)

Since according to Mrs. Eddy, "what is termed disease does not exist. It is neither mind nor matter," our readers will naturally wonder why



the disciples of Mrs. Eddy have established a "well-equipped sanitarium." They have not only established it, but in their literature they call it "a step of progress." This would seem to be a literal use of the words, as only one step has been taken thus far. The alleged sanitarium has been appropriately placed upon Single Tree Hill in the suburbs of Boston near the mother church. The treasurer's annual report of the Benevolent Association that has charge of "the sanitarium" for the year ending December 31, 1919, shows a total for the construction of building, improvement of grounds, furniture, administrative and operating expense, etc., of \$586,253.37. The official statement also says that the association can offer many beautiful testimonials of healing, although in analyzing the report we find that of the 73 patients admitted during the three months of operation, 40 are still there, and whether the remaining 33 are still in the land of the living is not definitely reported.

The purpose of this singular sanitarium, which is Mr. Ross's solitary boast, is stated in the official literature as "a Christian Science resort for the 'so-called sick.'" When these "so-called sick" get so-called sicker and succumb to so-called disease and are so-called dead, a so-called undertaker takes them to a so-called cemetery and there they remain with the vast majority silently awaiting the blessed hope.

It appears that not all of the "so-called sick" are acceptable at the Eddian Single Tree Hill Sanitarium, for the official report announces "certain cases requiring special housing cannot be received in the institution." Why do these "certain cases" require special housing?

Is it possible that the followers of Mrs. Eddy are beginning to discard her doctrines? Mrs. Eddy said: "One disease is no more real than another." This also applies to contagious diseases. Mrs. Eddy is particularly definite upon this subject. "Christian Science," she states, "handles the most malignant contagions with perfect assurance."

Are we to understand that the managers of this "single step of progress" sanitarium have lost Mrs. Eddy's "perfect assurance" and now acknowledge that "certain cases require special housing"? If this be true a real step of progress has been made, which will necessitate, however, the repudiation of the many absurdities contained in "Science and Health" and other writings of Mrs. Eddy.

If the followers of Mrs. Eddy, who operate this so-called sanitarium, are consistent with her doctrines they must tell the applicants for admission that they have no real tuberculosis, no epilepsy, no cancer, no Bright's disease; in brief, no disease. That all of these things are creations of their own imagination. That existence of material bodies and disorders of material bodies is a delusion "a dream of sin, sickness and death." That, as Mrs. Eddy says, "The press by printing long descriptions which mirror images of disease sends forth many sorrows and diseases among the human family. A

new name for an ailment affects people like a Parisian name for a novel garment. Everyone hastens to get it." Those in charge of the solitary sanitarium must tell their patients, according to Mrs. Eddy, that their material human bodies that are tortured by pain have no real existence outside the mind, and that even as existing in the mind, they are delusions, phantom lies told by the mortal mind to itself; the testimony of the five senses to the contrary notwithstanding.

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The same cruel and ill-founded theory of the inseparable relation of sin and disease was held by certain pitiless sects before and during Christ's time, until the Master corrected the false theory on an occasion that is told by the Beloved Disciple in these words:

"And as Jesus passed by, he saw a man who was blind from his birth, and his disciples asked him, saying, 'Master, who did sin, this man or his parents, that he was born blind?' Jesus answered, 'Neither hath this man sinned, nor his parents; but that the works of God should be made manifest in him.'"

The Christian method of abolishing sin is to avoid evil and do good; the Christian method of destroying disease is to find its causes and use all the preventive and curative measures which real science has discovered through long and patient research. The Eddyite alone seems infatuated with the fatuous theory that he really heals that which he claims does not exist.

#### PUBLIC HEALTH CONVENTION AT SAN FRANCISCO, SEPTEMBER 13-17.

The 49th National Convention of the American Public Health Association will be held in San Francisco September 13-17, and from present indications will bring to California the most distinguished body of health officials that have ever come to the Pacific Coast. This is the first convention that the A. P. H. A. has held west of the Missouri River and for many of the delegates it will be the first visit to California. Our state has long boasted of its healthful attractions and has an opportunity now to exhibit them to scientific men and women who can appraise and appreciate them best.

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sociological subjects, Industrial Hygiene, Sanitary Engineering, Vital Statistics, Food and Drugs, Child Hygiene, Personal Hygiene, etc.

A Convention Board consisting of President David P. Barrows, University of California; President Ray Lyman Wilbur, Stanford University; President Aurelia H. Reinhardt, Mills College; Dr. I. R. Bancroft, Executive Secretary State Board of Health; Judge Warren Olney of the Supreme Court, Mr. Chester Rowell of Fresno, Mr. Charles C. Moore and Dr. William F. Snow of the U. S. Public Health Service, was chosen by the national officers to have general charge of the convention. This Board selected Celestine J. Sullivan, Executive Secretary of the League for the Conservation of Public Health, as general manager of the convention.

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Two groups of symptoms are significant of beginning heart strain and their meaning should never be overlooked. First, is pain, reflex, appearing in the precordium, left upper chest, shoulder and arm, or in any one of these, and due to stimulation of the spinal centers of the lower three cervical and upper four dorsal nerves by distress in the heart muscle. Many other pains

occur in, or are referred to, the same areas. It is necessary to be cautious in diagnosing an anginal type of pain. It is equally necessary not to overlook the real significance of such referred pain as a mark of muscular insufficiency in the heart.

The second symptom group, which, in its early phases, all too easily escapes remark, is the group associated with incompetent circulation in any other part of the body. Two very early symptoms, often overlooked by the patient himself until he is specifically questioned, are easy tiring and breathlessness. The patient finds he is unduly tired by nightfall, that physical tasks he has formerly undertaken with ease, have become burdensome—in other words, the field of cardiac response is narrowed, and he is finding that his strength hardly suffices for his usual and ordinary effort requirements. Any demand slightly beyond the ordinary requirement meets with immediate evidence of lowered cardiac reserve. Just as significant is breathlessness on slight or ordinary exertion. The respiration rate is a fair barometer of cardiac pressure. The man of sedentary traits, often the physician himself, finds that he tires easily and breathes considerably faster on going upstairs or climbing a small hill. Often his weight has increased and his maximum girth has slipped from his chest in an equatorial direction. Without attention, he gradually finds definite heart weakness. With exercise, proper diet and hygiene, later serious heart disease may be averted.

It is the little foxes that spoil the vines. It is the trivial symptoms that enable us to avoid later trouble. It is the first minor evidences of decompensating heart action that enable the discerning physician to prevent heart disease in many cases. It is important to recognize and control circulatory weakness while it is in the field of lowered cardiac reserve, rather than to wait for unmistakable evidence of interference with the normal or usual field of cardiac response. Estimation by the skilled observer of clinical signs and symptoms will never be supplanted by purely mechanical and instrumental means of heart examination. Not the loudness of the murmur, but the ability of the heart to maintain efficient circulation, is the test of an efficient heart.

#### CHIROPRACTIC S. O. S.

We are informed by the Los Angeles "Record" that the chiropractors are issuing S. O. S. signals at frequent intervals these days. The signals are chiefly for quick and generous financial aid. Chiropractors who have been violating the medical practice laws have been arrested in a number of California cities. They want a defense fund.

The safest road for these to travel, as well as members of all other cults, and of the entire medical profession is the highway marked by definite statutes. It is not only safest for them but safest for the public. It is a mystery to us where and why any adult gets the opinion that the medical laws of this state can be violated with impunity. The amazing audacity of those who attempt to practice the healing art in defiance of law is born of egotism and ignorance. The



the disciples of Mrs. Eddy have established a "well-equipped sanitarium." They have not only established it, but in their literature they call it "a step of progress." This would seem to be a literal use of the words, as only one step has been taken thus far. The alleged sanitarium has been appropriately placed upon Single Tree Hill in the suburbs of Boston near the mother church. The treasurer's annual report of the Benevolent Association that has charge of "the sanitarium" for the year ending December 31, 1919, shows a total for the construction of building, improvement of grounds, furniture, administrative and operating expense, etc., of \$586,253.37. The official statement also says that the association can offer many beautiful testimonials of healing, although in analyzing the report we find that of the 73 patients admitted during the three months of operation, 40 are still there, and whether the remaining 33 are still in the land of the living is not definitely reported.

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exalted ego of little learning seems to convince its dupes that they are born to heal for coin and their ignorance confirms the verdict.

The low opinion which some chiropractors have of the intelligence of the people is betrayed in their tiresome repetition of the false statement that the California State Board of Medical Examiners is composed of competitors of theirs and are therefore prejudiced against them. The action of the Board is subject to court review and the way to the courts is always open. But when the unlicensed chiropractors are haled before the courts, they object to court review. The ways of the transgressor are hard to understand.

## Editorial Comment

On June 5, 1920, the records of the State Board of Medical Examiners showed 1150 practicing physicians in good standing in San Francisco.

In this, as in every other issue of the Journal, you are going to miss things of unusual value and interest, if you do not look through the entire Journal.

Will the Eddyites kindly bring forward one single case of proved syphilis cured by Eddyism alone? If they will do this, it will strengthen our wavering faith in their sincerity.

In connection with Dr. Rixford's article last month on Osteopathy, be sure to read in another column of this issue, "Why We Believe in Proper Medical Education."

The intimate relationship between the physician and industry was pointedly expressed in a recent lecture on industrial medicine by Dr. David Edsall, in San Francisco, when he said: "I think I never go into a factory of any kind without seeing *something* that has a direct relation to medicine."

A number of papers read at the Santa Barbara meeting have not yet been submitted to the Journal office. Will those who are dilatory, neglectful, or forgetful, please send in their papers at once?

In spite of the crowded condition of the Journal, physicians outside of Los Angeles and San Francisco are urgently requested to send in short reports of cases of special interest or difficult diagnosis. If you wish assistance on some obscure case, send in an outline and it will be discussed in the Journal by appropriate authorities. Your name need not appear if you so wish.

Social work has become a large and important specialty of medicine. A hospital or clinic without a social service department is sadly out of touch with modern medicine. The physician must not forget his obligation to translate his training

and experience into social terms through the medium of the social worker. Social service is the handmaid of modern medicine, and as such, must be rightly trained, rightly advised and rightly directed.

The managers of the State Charities Aid Association of New York, in asking the Governor to veto a bill recognizing chiropractors, state as follows: "No persons trained in anatomy and the treatment of disease recognize that there is any such thing as 'misplaced or displaced vertebrae' in the sense referred to. If a man is hanged, his vertebrae are very likely displaced. . . . The whole structure of chiropractic is built on an assumption which, according to the best information we can get, has no basis in known fact and is contrary to all accepted scientific teachings."

## Special Articles

### NEGLECTED OPPORTUNITIES

By H. A. L. RYFKOGEL, M. D., San Francisco, Cal.  
ADDRESS OF PRESIDENT

For many reasons the members of the medical profession of California are singularly fortunate.

Their activities are carried on in one of the Earth's great Natural Gardens, in which mountain and vale, ocean and lake, orchard and meadow perpetually delight the eye and divert the worried mind.

Their patients and friends or their forebears came to California because the spirit of courage and adventure or love of the beautiful impelled them to leave their ancestral homes and carve out new fortunes and revitalize their souls in a strange and alluring environment.

Peoples from all the places of the Earth, here assembled and mutually intrigued by the seductive charm of their California, have developed an unconstrained familiar spirit from which has arisen that hospitable character which is so well-known the world over and makes life in this state complete, contented and happy.

The physicians of this state, like physicians everywhere, have been generous in individual personal service and when their reward has not been adequate the cause has not always been lack of appreciation on the part of the patient but often to neglect by the doctor of his business methods or to financial difficulty of the patient beyond his control.

They have not until recently, however, made serious attempts to give an organized communal service to the people as a whole.

The possibilities of civic service by an organized medical profession ramify in countless directions and his neglect of his very great responsibilities has resulted in the trained medical man the world over having no voice in legislative bodies.

Influence in the best sense is ever the reward of service and in so-much as an organized medical profession aids the people in the solution of the various problems that stand between them and bet-

ter health, so far the people turn to it for the further development of activities that banish diseases and prolong lives.

Happily the medical profession has the good fortune to have enemies who have roused them for their lethargy of civic inactivity, enemies who by venal methods have sought to retard new or even undo former legislation that tended to advance medical and sanitary science.

In this corrupt attack the most powerful ally has been ignorance on the part of the people and their legislative representatives and until recently there has been evolved no plan whereby the people could be informed of the real significance of measures affecting public health or medical education nor any scheme evolved whereby legislators could learn the action desired by their constituents when bills affecting the public health or the future advance of medicine were presented to them.

Forward movements in science, in education, in politics or religion have through the ages met with bitter opposition from those who worship things as they are and believe that any advance means damage to the social order or from the ignorant who believe that because they themselves lack knowledge, therefore every factor in human social existence should be pulled down to the level of their understanding.

The physician in dealing with patients and friends has often neglected invaluable opportunities for inculcating the scientific aspects of modern medicine and too often led them to believe in the mysterious powers of some extraordinary natural ability or the occult value of mystic remedies.

Common sense descriptions of the diseased condition present and a logical explanation of the treatment suggested are many times replaced by vague and abstruse suggestion of indefinite but appalling ills, the cure of which can be accomplished only by remedies whose workings are incomprehensible by the layman's intelligence or even the names of which disastrously affect his ailment.

It is not always a matter of astonishment that the sick man at times seeks one who proclaims his method more miraculous because it demands more of his credulity than those of the physician.

As a small dose of the mysterious seems good he thinks perchance a better solution of his difficulties is a larger dose.

To the man ignorant of the exact nature of his disease a thrust in the back which in some inscrutable fashion affects the nerves and thereby the diseased processes in a distant organ is as logical a treatment for his unexplained symptoms as a Latin prescription of unknown significance.

To the unfortunate neurotic whose symptoms may be due to disturbing influences in her mental environment or to failures in her psychic conflicts the mental anesthesia induced by the "all is good and God is all" of the Eddyist may be much more appealing than a diet and a dose of bromide.

A careful sympathetic discussion of symptoms and signs and a logical explanation thereof cannot but appeal to the patient; a rational explanation of the treatment proposed will certainly win

his confidence and will surely impress upon him the scientific methods of the physician as distinguished from the guess work of the cultist.

The average man especially when ill is more interested in himself than any other person or thing and through a thorough and thoughtful discussion of his ailment can be taught to take a common sense view of the need of a high standard in medical education.

Instead of telling a patient he has rheumatism in his ankle—is it not wise to say that he has an acute or chronic inflammation of the tissues of or around the joints, and that inflammation is the result of some form of injury which may be mechanical, bacterial or chemical and that the treatment must consist in the discovery and removal of the cause in the first place and the removal of exudates, deposits or new formation of tissues and restoration of normal circulation and function in the second? The physician who thus reasons with his patient at once develops a great opportunity to interest him further in the general subject of better medicine and hygiene.

How easy it is to explain to the receptive mind the necessity of examination of children for defects that might mar their future health or give some striking examples of the necessity of improved sanitation.

Instead of vituperative diatribes against the cultist why not seize the opportune moment of the consultation to teach that we ask only that those who treat the sick have practical knowledge of normal and diseased processes in order that the disasters that come from ignorance be not invited.

Give him a specific instance—tell of the influenza cases treated by prayers and trusting, but by wrong diagnoses allowed to leave their bed and wander around until pneumonia and death resulted—tell of the tubercular joints manipulated and the results—tell of the acute glaucomas prayed over until iridectomy could no longer save the sight—tell of the ruptured gastric ulcers, the obstructed bowels, the strangulated hernias manipulated, thrust, prayed, wished and even with occult passes waved over to the place from whose bourne no patient returns.

The physician should seize every available opportunity to explain the danger of vicious legislation that may be pending and in the present year we have because of certain exceptionally vicious measures to be voted on by the people an unusual excuse to contrast science with nescience in medicine.

The physician constantly deals with the problem of the individual and all his mental processes are developed toward their solution and the instruction of the single patient.

Accustomed to be the sole arbiter in matters submitted to him he becomes mentally autocratic and even intolerant in his attitude in matters relating to medicine.

He has not like the lawyer learned so to mold his thinking that it will influence groups and masses or has he learned that in order to educate and properly influence a population thorough organization is essential, and that an organization to be



efficient must employ specially skilled and loyal experts and command unwavering assistance in policies that have been planned by chosen officers even though at times he may disagree.

He forgets that executives must at times act on knowledge that must not be divulged for strategic reasons and is therefore inclined to criticize the plans of the organization.

In 1918 when the initiative suggesting an unsatisfactory method of sickness insurance came before the people, members of the profession realized that the proposed measure would degrade the profession and demoralize the public. An appeal was made to the physicians to organize and defend themselves. The success of this you know, but it became evident that it was necessary to organize and thoroughly drill from among the members of the medical profession a voluntary army who could devote themselves to the advancement of public medicine as represented by medical education, sanitary science, hospital improvement and industrial medicine.

The Publicity Bureau had already discovered the impossibility of converting the State society into an organization of this kind because societies that are primarily scientific and social must necessarily make a poor showing in any militant function that is thrust upon them.

A fighting mechanism whether to be a battleship, an army or an organization must be designed for the purpose of winning battles and the League for the Conservation of Public Health is the mechanism that the profession of California has constructed to win its battles for the development of a healthy citizenry and the success of medical ideals.

Already the League acting for the State Medical Society has accomplished extraordinary results and entered into many promising activities that will be of inestimable value to the people and the profession.

Just one example. The Medical Society of the State of California was asked by the American Medical Association and several national bodies to join with a committee selected by itself, the Dean of the Medical School of the University of California, the Dean of the Medical School of Stanford University, and the State Board of Health, to undertake the so-called standardization of the hospitals of the state. The council of the State Medical Society decided that the League for the Conservation of Public Health had the machinery and was best equipped to do this important work. It called upon the League, and the League responded. The functions and the facilities of the State Society were then transferred to the League for this specific purpose and the results have been most gratifying. The League has already obtained more practical, accurate and complete data on the hospitals of the State and the problems that confront them than any other organization, local or national, has been able to secure.

The League's program comprehends a gradual improvement and development of the progressive hospitals of the state to accomplish the maximum

of good for all. All hospitals of the state will be surveyed as rapidly as possible. The purposes of this survey is to determine the hospital facilities, the kind, character of construction, administration, equipment and quality of service each hospital is rendering in its particular community.

The information gathered is filed under the fifty-eight heads of the official hospital survey reports of the League. A duplicate of these reports covering each hospital is sent to the American Medical Association. I could quote at length from many splendid endorsements which this work has received from the American Medical Association, but will only include this brief commendation from our highest authority. "I appreciate very much the thoroughness with which you are investigating the hospitals of California and wish that in some way equally fair organizations and equally competent inspectors might be procured in other states." I wish to add to this my own personal commendation. The ability, industry and thoroughness of Doctors Musgrave, Ophuls, Whipple, Fulton and Black, are well known to all of you, and the work that they are doing through the machinery of the League makes for better medicine and better hospitals. American Medical Association has stated that the hospital betterment movement is the most important problem to solve and the paramount work before the medical profession today. It should be a source of deep gratification to all of us that the medical profession of California has taken an advanced position on this important subject.

Before closing I must call your attention to the untiring loyalty and efficiency on the part of your executive officers. For the first time in the history of the society a systematic campaign has been inaugurated by the Publicity Bureau for the increase in the membership of the society.

Dr. Kenyon will tell you in the report of the Council to the House of Delegates how highly successful this has been.

Efforts have also been made to devise methods of increasing the attendance at the County Societies, and I believe much further work should be attempted along this line.

Large attendance means increased interest, increased interest means augmented membership and improved organization.

I suggest a study of the methods of the many societies throughout the U. S. and investigation of our own county units in order that plans for increasing the value of the societies to their members may be devised.

The meeting of the State Society should be more largely attended. 20% is not a sufficient representation. Methods to make the meeting even more attractive should be planned and some of the Society funds can and should be placed in the hands of the program committee for expenditure at the time of the annual meeting.

Your committee on Industrial Accident Insurance with Dr. Parkinson as chairman has done a great deal of work. The members have given much time, traveled and devoted enormous amounts

of thought and energy to the solution of the problems involved.

I have been present at several of their meetings and conferences as well as at the regular and special meetings of the Society where the subject was discussed.

In its report the committee submits a substantial increase in rates, greatly simplified report blanks for general use, and makes the statement that the carriers would welcome the appointment of a standing committee from the Society to which all matters in dispute between the companies and the profession would be referred and would in turn appoint one themselves to co-operate.

The attorney of your Society, Hartley Peart, has as usual given up unselfishly not only his time but his very best thought and more especially a loyal friendship accompanied by a loving understanding of medical ideals, medical ambitions and medical men. I ask you to listen especially carefully to his report.

No claimant has been found entitled to any judgment against any member of the Society during the past year for alleged acts of negligence. Those members of the Society who have joined the Indemnity Defense Fund have the satisfaction of knowing that the resources of the Fund have remained unimpaired except for two small settlements from the time that this co-operative protection was established in December, 1916.

During the year the membership in the Fund has very greatly increased. Those of you who have not joined it should not hesitate longer before doing so. You owe it to yourself and your family to secure this protection which we believe to be superior to any other, and even though you may be insured in private companies you should add to that insurance a membership in the Fund. As the Chairman of the Council and the Legal Department will present reports more in detail on these subjects, I will not go into further detail concerning them.

I began this address with a eulogy of the natural environment in which you pursue your tasks.

I will close by congratulating you on being the best organized group of medical men in the world today and by praising you for having effected your well knit and interlocking organizations on an unselfish basis of service to the public.

But do not forget that while we are becoming better doctors we must also become better soldiers in this army that we have created because the forces of ignorance like those of evil will always be prepared for an attack and will ever select for their opponents, those who are of the greatest service to the world—the proponents of knowledge.

#### CAMPAIGN ISSUES.\*

By DUDLEY A. SMITH, M. D., President of the League for the Conservation of Public Health  
Santa Barbara, May 12, 1920

A year ago in this very room the League held its first luncheon at a convention of the State

Medical Society. When we were invited to fill a similar place on this year's program we accepted gladly; for all the work that we have been doing has been for the upbuilding of the medical profession, and we have been successful in our work because we have received the untiring, enthusiastic and active co-operation of the medical profession throughout the State.

We told you last year that the League was a 365-day organization that was both on and on to its job, always ready for fight or frolic, for emergency or regular service. We had scarcely left Santa Barbara when we were called upon to make good our promises by doing heroic emergency work.

Whilst we physicians and surgeons were engaged in profound discussions and delightful exchange of erudite ideas down here by the opaline seas, a minority, that some considered negligible, impressed the Legislature so favorably and forcibly that the title of physician and surgeon, which we all prize as a precious possession, was wholesaled to this inferior minority at the bargain price of \$25.00 per title—and mark you, without any examination.

#### GOVERNOR VETOES BILL

The League wired the Governor and called his secretary on the long distance asking that his Excellency withhold his signature and accord us an opportunity to present arguments and show that this Osteopathic Bill was a menace to the public health. A brief stay of execution was granted. We were allowed 36 hours to mobilize our forces. A dozen long distance telephones got busy. Before the hour arrived for the hearing in Sacramento the Senate Chamber was filled with leading representatives of the profession from all sections of the State. Many who could not come on such brief notice wired the Governor reasons, in respectful language, why he should veto the bill. It was said by one of the doctors who attended that memorable meeting that if those who came in answer to that emergency summons were called into consultation to see a millionaire, the combined fee would be over a million. And the glory of that coming to Sacramento by the leading representatives of scientific medicine; that demonstration of interest in the public welfare was worth over a million to the public health of this State—when you pause to consider how the health of the men, women and children would have been jeopardized if hundreds, yes thousands, of incompetent men and women, without experience or training, would have been turned loose by that bill on an unsuspecting public with unlimited license to prescribe drugs and perform operations. It hardly seems possible at this distance from Sacramento, and especially in this scientific atmosphere, that a majority of the Legislature considered your title and mine worth only \$25.00. That, however, would be the law of the State to-day if it had not been for the well-directed efforts of the League.

In reviewing the medical legislation of this country, we find very few facts upon which to congrat-

\* Read before the League for the Conservation of Public Health at the Forty-ninth Meeting of the Medical Society, State of California, Santa Barbara, California, May, 1920.



ulate the medical profession. For a long period the public was willing to leave in the hands of the medical profession the examining and licensing of its own members. It was believed that this would be the most effective method to protect the public against ignorance and imposition. This plan was adopted by the people to govern two professions—the medical and the legal. The medical profession, for reasons well known to all of you, lost the privilege, the laws were repealed and other laws restricting, hampering and undermining the medical profession were passed.

#### CONTRAST MEDICAL AND LEGAL PROFESSIONS.

The legal profession still has entire control of admission to its profession and expulsion from it. There are no cults or sects in the legal profession. Qualifications for admission are based solely on educational and moral character. The legal profession takes an active interest in civic affairs and in making the laws by which it and all the rest of us are governed. The medical profession, in some States, considers it almost unethical to know the name of an Assemblyman or State Senator—such profane knowledge seems to disturb its laboratory findings. We know in California, however, that the action of your Assemblyman or my Assemblyman may disturb not only the laboratory findings, but the laboratory foundations. We know the Legislature has plenary power to determine the laws under which we practice, and the chief reason that legislatures in various States have passed laws that weaken and impair medical practice and imperil the public health is because no consistent organized effort was made by the medical profession to inform the members of the Legislature.

We find the medical profession in New York serving notice that it will not serve the public if certain alleged social welfare laws are passed. We read last week of the medical profession in New Jersey passing resolutions condemning Governor Edwards, giving the resolutions to the public press in which the doctors promise political reprisals against the Governor and the Legislature, because the Executive and the solons passed obnoxious laws. No argument, however, was offered against these laws until they were passed. The scientific tears that we shed over spilled lacteal fluid will not irrigate any alfalfa, especially when we spill the beans in addition to spilling the milk, as the doctors did in New Jersey. Why did they do it? Because they are not organized, they have no uniform policy or plan of action. One of the chief secrets of the success of the framers of the Constitution and the founders of this Republic was organization, consultation acting as a unit. Gladstone said, "the American Constitution is the most wonderful work ever struck off at a given time by the brain and purpose of man."

#### LEAGUE REFLECTS CONSENSUS OF OPINION.

Various writers in analyzing the Constitutional Convention, which met at Philadelphia in May, 1787, have observed the many shortcomings in the different plans offered by individual delegates, and how far superior the Constitution finally

adopted was to any individual plan. It represented the consensus of opinion. And that is what this League always aims to do for the medical profession. It is the consistent and persistent policy of the League to secure a consensus of opinion, get the facts, before it takes action. On controversial questions that have not been passed upon definitely by the medical profession, it is obviously improper for the League to take affirmative action. The League cannot be stampered or its influence enlisted for private purposes.

#### FOUR CAMPAIGN QUESTIONS

There are four questions, however, that are campaign questions this year upon which the League has already assembled sufficient reliable information to warrant us in recommending their defeat.

#### WHAT ANTI-VIVISECTION WOULD DO TO CALIFORNIA

The first to which I invite your attention is the proposed initiative which the anti-vivisectionists are placing on the ballot to be voted on at the general election November 2, 1920.

Even a cursory examination of this proposed measure will reveal its pernicious character. It means, if adopted, the discontinuance of all experimental research work in general biology, in agriculture, in medicine and veterinary medicine in California. This would make the proper training of students in these essential subjects impossible. It would practically abolish in this State the manufacture of the numerous vaccines and sera that are used in the prevention and treatment of disease, impair the standardization of drugs and thereby seriously interfere with the practice of medicine.

Experimental diagnostic tests, so effectively used by physicians in their daily work for tuberculosis, syphilis and pneumonia, would be practically prohibited by this vicious measure. All scientific progress through experimental channels would be stopped. Public health work that must rely on experimental investigations for the conduct of campaigns against epidemics, would be completely handicapped, as under the provisions of this anti-vivisection initiative the scientific steps necessary to discover the causes and control any epidemic would be forbidden. Epidemiology would thereby cease to be a great vital force in California. The incalculable damage to the health and development of the State and the many other disastrous results that would necessarily follow the adoption of this measure are not obvious to the average voter, and therefore an educational campaign is demanded.

The danger that this initiative might be adopted will be apparent to you when you know that the proponents of the measure are extremely active and well financed. We all know how effective a sentimental appeal may be made, and how mendacious propaganda wins support when allowed to go unchallenged. The anti-vivisectionists this year seem to have an unlimited supply of misleading literature that will impose on many unless we conduct an effective educational campaign to counteract it.

#### WHY DO CHIROPRACTORS WANT INDEPENDENT BOARD?

The second measure is the Chiropractic Initiative which proposes to create a separate Board of Chiropractic Examiners. Under the present laws of California a chiropractor may take the drugless examination which requires only half the educational qualifications demanded for a physician and surgeon's certificate. So that any half-educated disciple of chiropractic may secure a license by passing the easy examination given by the State Board of Medical Examiners.

There are a number who are unable to meet the lowest requirements and who are practicing the healing art in defiance of the law. There are some of our public officials who look leniently upon and are very indulgent to violators of laws pertaining to the public health. There is nothing more vital to the public welfare than those laws that endeavor to safeguard the health of the people by making all, who treat diseases, injuries, deformities or other mental or physical conditions, pass a definite examination to determine their moral and mental qualifications.

Less than 1 per cent. of those licensed to practice in this State are chiropractors. There are a number practicing without license, and they have boasted in their own publication and in open letters that they will not submit to the Board of Medical Examiners of this State. They have come here with the avowed purpose of breaking down the present Medical Practice Act and establishing a board of their own through which all that are now practicing in violation of the law would be admitted to practice upon their own terms and without any competent control by the State.

They secured upwards of 65,000 signatures to their initiative petition and it will be voted on at the general election November 2, 1920. At the last session of the Legislature members of this small and almost insignificant group came within two votes of passing a bill that would give them all the special concessions that they are now asking direct from the people. The bill would have been passed had it not been for the effective work done by the League for the Conservation of Public Health.

The reason that such a small group was able to make such a strong impression on the Legislature is because it is active and well organized. The reason the League was able to defeat that bill and many others that contained lurking dangers was because the League had the organized machinery to place the facts impressively before the Legislature. Even when we have right on our side, if we don't get right side up with care, the right side will go down.

#### OSTEOPATHIC REFERENDUM

Another measure on which the medical profession should be prepared to give accurate information is the referendum which the osteopaths have placed upon Senate Bill No. 604. Senate Bill No. 604 amends Sections 7, 8 and 9 of the Act of March 6, 1907, regulating the sale and use of poisons in the State of California, and makes it unlawful

for any person to sell, vend or give away or furnish a hypodermic needle unless such instrument was purchased by a duly licensed physician, dentist or veterinarian to practice and prescribe medicine. All these various terms are defined in the Act and do not include an osteopath. Now, what an osteopath—the outstanding champion and exponent of the non-drug or drugless system of healing—wants with a hypodermic needle is not clear to me. It is absolutely inconsistent, but no one looks to cults for consistency. Cults don't wear that kind of jewelry. But we are justified in expressing surprise when we find the osteopaths placing a referendum to prevent the enforcement of a law that merely prohibits them from doing what they have long declared they never do and don't want to do, because it is wrong to do. Blessings brighten as they take their flight.'

The osteopaths compose only 7 per cent. of the licensed practitioners of the State, and nevertheless they were powerful enough through their well-financed and directed organization to pass a pernicious bill at Sacramento last year.

#### CONSTITUTIONAL AMENDMENT PROPOSED BY THE PUBLIC SCHOOL PROTECTIVE LEAGUE.

A fourth measure—a Constitutional Amendment—will appear on the ballot at the general election November 2, 1920. It reads as follows:

"No form of vaccination, inoculation or other medication shall hereafter be made a condition precedent in the State of California, for the admission of any person to any public or private school, college, university or other educational institution, or for the employment of any person in any public or private business or industrial activity, or for the exercise of any right, the performance of any duty, or the enjoyment of any privilege. The provisions of this Section shall not be controlled or limited by any other provision of this Constitution."

I need not stop to point out the comprehensive character of this vicious measure or the hampering activities of the Public School Protective League that has undertaken to pass this Constitutional Amendment.

#### BETTER HEALTH MAGAZINE

*Better Health* magazine—the official organ of the League for the Conservation of Public Health—will deal very fully in coming issues with this and other vital issues that confront the medical profession.

*Better Health* will be the constant champion of modern preventive medicine. It will be the outspoken advocate of progressive health legislation. It will be interested in the enforcement as well as the enactment of laws that will insure a qualified medical profession, well directed and equipped hospitals, laboratories and other efficient agencies of modern medicine. It will be an active ally of all of these to enable them to promote and protect the public health and render a better and safer service to all.

Through the medium of *Better Health* the League will extend its campaign of education and correct



popular errors and unsound views on vital questions that hinder or prevent the progress of modern medicine. The officers and members of the League for the Conservation of Public Health are devoted to this worthy enterprise, which gives ample guarantee for its success. *Better Health* will win not only by the merits of its contents but by what the League stands for in California. It will be our permanent policy to maintain the highest standard of quality in all departments of *Better Health*. I ask all of you to give *Better Health* the welcome and support that I know it will merit. First read it from cover to cover yourself. Then place it in your reception room for your patients to read.

#### THE DOCTOR'S DUTY TO THE PUBLIC

It has often been observed that if all the truths of modern medicine could only be applied in their fulness all the time, that the health and happiness of the community would be immeasurably increased. The chief reasons that they are not applied, and that much of the scientific work of medicine is often nullified, are ignorance, prejudice and carelessness, and the heavy handicaps imposed by a combination of the three. Education of the public along health lines is the direct road to better medicine and better hospitals. Without public good will and public co-operation no movement can accomplish much. We want to preach the gospel of health to the public through the League magazine *Better Health*, so the larger its circulation the more the League can accomplish for the common good.

In these four Campaign issues that I have briefly outlined to you, I am sure that each of you will recognize an individual duty and responsibility. To be determined rightly these questions demand the attention and the information and the leadership which the medical profession owes the public on health questions. We are not interested in the defeat of any of these measures because of personal gain. We have no private purposes to promote and no selfish interests to advance. If these measures were in the interest of the public health, the medical profession should and would be for them; as they are a menace to the public health all of us must be against them.

### Original Articles

#### THE FORMICATION TEST IN PERIPHERAL NERVE INJURIES—ITS INTERPRETATION\*

By CHARLES L. TRANTER, M. D., San Francisco

When a new diagnostic test is proposed which promises either to give information not afforded by the customary tests, or to replace ordinary methods because it is more easily or quickly carried out, it usually receives a thorough and impartial trial by numerous workers. Few of the proposed tests, however, survive the critical investigations given them, while the majority are discarded because they add nothing of value to the

information afforded by the accepted methods of diagnosis, or because they prove to be unreliable. The formication test has been exhaustively investigated by neurologists and surgeons who were engaged in the care of peripheral nerve injuries during the recent war, because it gave promise of providing information not afforded by the routine tests, and because it was thought to be a shortcut method of diagnosis. The result of this investigation is a skepticism so great that the test is in imminent danger of being discarded. Whatever judgment is passed upon it at the present time seems destined to stand, for the experience with the comparatively small number of peripheral nerve injuries to be observed in peace times will have little weight when compared with the huge experience with similar war wounds.

Unless a different interpretation is accorded the test from the one now current in this country outside of a few neurological centers, a valuable diagnostic procedure will go unrecognized. Many of our most competent observers have recorded the presence of formication below the level of the lesion in cases in which operation demonstrated complete severance of the nerve with considerable separation of the ends. These same observers contend that the presence of formication affords no evidence of the proportion of nerve fibers that are in the process of regeneration. With the current technique these statements cannot be successfully controverted, and they would seem to warrant the discontinuance of the test, for the information afforded by it would seem to be misleading and confusing.

A technique is possible, however, embodying a measurement of the length of the zone formication and a comparison of the intensity of the formication elicited at the level of the lesion with that elicited at the lower levels, which will permit a diagnosis of complete interruption of the nerve to be made with just as much certainty when formication is present below the level of the lesion as when it is fixed at the level of the lesion, and further, which will give an indication of the proportion of nerve fibers in course of regeneration. In addition, it will furnish the surgeon with information concerning the penetrability of a lacerated, scar-enveloped, or neuroma-containing nerve, which will be the best evidence very frequently for or against excision and suture. The importance of the last mentioned statement must not be underestimated for it makes an exploratory operation the rational procedure comparatively early in a majority of severe nerve injuries as it deprives this operation of the danger of removal of nerve tissue in the course of regeneration. It gives more information in doubtful cases than is afforded by inspection or palpation. Without question the most difficult problem the neuro-surgeon faces in the treatment of peripheral nerve lesions is the decision between resection and suture on the one hand and neurolysis on the other after he has exposed a lesion consisting of frayed-out nerve fibers, a neuroma in continuity, or a nerve enveloped in a mass of scar tissues. In such cases

\*Read before the Forty-ninth Annual Meeting of the Medical Society, State of California, Santa Barbara, May 11, 12, 13, 1920.

there is no voluntary motion, faradic stimulation of the exposed nerve is practically always negative so that the formication test is the sole criterion of the penetrability of the lesion. Much would be lost by resection and suture provided regeneration had been proceeding satisfactorily.

A technique which embodies a comparison of the intensity of the formication at the level of the lesion with that elicited at lower levels and a determination of the average daily rate of regeneration has given data so useful that the speaker recommends the routine use of this method of performing the test. The legitimate position of the test is as a part of the complete neurological examination, for its proper interpretation depends upon the consideration of all the diagnostic data.

The interpretation herein set forth is the result of an experience with over a thousand cases observed at an interval of from a few days to eighteen months after the receipt of the wound, and upon the observation of the work of Tinel and his associates during an extended period.

In the early contributions which appeared in English there was no insistence upon a comparison of the intensity of formication at the level of the lesion with that elicited at lower levels, nor upon an estimation of the average daily rate of regeneration, and it is because of this fault in technique that incorrect conclusions have been drawn and a valuable test come into more or less disrepute.

Tinel's sign may be defined as the presence of formication in the cutaneous sensory distribution of a nerve elicited by mechanical stimulation of regenerating axones by pressure or percussion over the nerve trunk either at or below the level of the lesion. The importance of the sign is due to the fact that by measuring the zone over which mechanical stimulation induces formication, to be spoken of as the zone of formication, the length of the regenerated portion of the nerve can be determined.

It is a well-known physiological fact that the sensation resulting from stimulation of the trunk of a sensory nerve is referred to the peripheral distribution of that nerve; hence the mechanical stimulation of regenerating axones results in a sensation referred to the skin distribution of the nerve. A common example of this peripheral reference of sensation is that sensation thought to be felt in a missing hand or foot when an amputation neuroma is stimulated.

Formication does not appear immediately after an injury even if there has been an immediate suture, but only after the lapse of from four to six weeks, for it is only after recovery from the retrograde changes has had time to take place that the process of regeneration begins. The absence of a fully-formed myelin coating has been thought to account for the ease with which regenerating axones can be stimulated with resulting formication. Formication is very easily elicited when a neuroma is stimulated, and this is correlated with the fact that a neuroma contains a large number of new axones, representing as it does an attempt, though a defective one, at regeneration,

the axones simply becoming rolled upon themselves without making any progress.

The sensation of formication experienced by the patient is described by him quite characteristically. Most frequently he likens it to a "feeling of electricity" which he localizes accurately to the cutaneous distribution of the affected nerve. Often he will speak of the sensation as "tingling" or, less frequently as "a pins and needles" sensation. It may vary from a slight momentary paraesthesia to an intense tingling persisting a minute or more after the stimulation has been discontinued. This variation depends upon the number of sensory fibres that have regenerated and the intensity of the stimulation. Nerves that are rich in sensory fibers, as the median, are capable of giving formication of greater intensity than nerves which contain but a small proportion of sensory fibers, as the anterior tibial. The variation in the intensity of formication that can be elicited in different nerves occasions no difficulty in examination for different nerves are not compared with one another. The intensity of stimulation must be varied to suit the individual case, for a deeply situated nerve, or one surrounded by callus requires stronger percussion than a superficially situated nerve.

The descent of the zone of formication corresponds to the growth of the sensory fibres and does not directly measure the regeneration of the motor fibres. A fairly close correspondence, however, has been observed in our experience between the rate of regeneration of the two varieties of fibres. The failure of the test to directly measure the growth of motor fibres is of practical disadvantage with reference to lesions of only one peripheral nerve, the posterior interosseous branch of the musculospiral nerve. However, it is frequently possible to follow the descent of fibres in this nerve with lesions of the musculo spiral above due to the misdirection of sensory fibres into this purely motor nerve.

The rate of regeneration may vary more or less according to the general health and age of the individual, the character of the injury, and the reparative powers of the individual. Alcoholism has been thought to exert a retarding influence on this rate. The descent of the zone of formication may be due to the regeneration of but a few fibres while the bulk of the fibres become rolled upon one another into a neuroma at the site of the lesion. In such cases, however, a careful examination will reveal the fact that the intensity of formication produced by percussion over the neuroma is very great while that elicited at lower levels is much less. There is a tendency for the zone of formication over a few fibres in such a case to proceed but a comparatively short distance, and to fail to reach the extremity of the limb when the lesion is high.

Formication persists for many months so that it is easily possible to determine the level of the lesion or of operation six or eight months or even longer after the date of injury or operation. Strong percussion may be needed to obtain the upper



limit after the lapse of many months. Because of the long persistence of formication it is possible to obtain measurements in millimeters of the zone of formication.

The sensation of formication is quite different from the pain of nerve irritation and there is never any difficulty in the differentiation. Formication is absent in cases of pure compression where no axones have been destroyed, and it is never found in those cases of "nerve shock" accompanying wounds from which the paralysis is recovered in a few weeks. It is present in incomplete interruption where it indicates the presence of axones in the process of regeneration. Stray sensory fibres may grow out from the lesion penetrating the adjacent scar tissue growing into superficial scars or over-neighboring muscles. Careful examination will reveal the cause of the slight formication which may be produced by these aberrant fibres and there will be no confusion. Sensory fibres may grow into motor branches as in the posterior interosseous nerve.

#### TECHNIQUE AND INTERPRETATION

The two determinations necessary for the correct interpretation of the test are:

1. A comparison of the intensity of the formication elicited at the level of the lesion with that elicited at the lower limit of the zone of formication.

2. A measurement of the length of the zone of formication and a determination of the average daily rate of regeneration.

The lower limit of the zone of formication should be determined by beginning with light percussion well distal to, and gradually approaching the lesion. The patient should be requested to state when he experiences a peculiar sensation and to describe it and to definitely indicate its position by tracing its outline with the finger. This determination should be repeated a few times, giving the patient an opportunity to state when he definitely feels the tingling. Percussion with the finger tip is much to be preferred to that with the percussion hammer. It may be necessary to allow an interval of a few moments between successive tests when determining the lower limit of formication, for the tingling once initiated may continue for a short time. It would be disadvantageous to proceed distally in determining the lower limit because of persistence of formication. Especial care must be taken that the nerve is not under tension as is often the case after resection and suture and to obviate which the limb should be flexed. When such a nerve under tension is percussed many centimetres below the termination of the regenerated axones the patient may reply that he feels formication due merely to the transmission of the impulse. Likewise care must be taken in percussing a nerve beneath an infiltrated area where the stiffness of the tissue will transmit the impulse and cause stimulation from a distance. The limb should always be supported and it is preferable that the patient should be looking away from the region percussed. Agitation of a limb should be avoided and the extremity should not be

cold. Care must be exercised that formication is entirely within the distribution of the nerve tested and not in that of a neighboring nerve which may also be affected. When more than one nerve is involved in the extremity, percussion must be so directed that only one is stimulated at a time, or it should be repeated until the patient can definitely distinguish between the sensory regions supplied by various nerves.

The many precautions detailed above really involve but little trouble in practice. A careful explanation of what is wanted should precede the examination. The tingling is so definite that consistent replies were obtained even from patients of rather low intelligence. While percussion has been spoken of as the stimulation used, merely slight pressure of the finger tip may be all that should be employed where there is danger of transmission of the impulse.

The upper limit of the zone corresponding to the level of the lesion or to the line of suture should next be determined by beginning above and gradually approaching it. Stronger percussion may be needed if many months have elapsed since injury or operation. The wound left by a missile or an operative scar is an indefinite indication of the level of the lesion and is wholly unsatisfactory in measuring the zone of formication. This level should likewise be marked with a skin pencil. After both limits have been marked the distance should be measured in millimeters. The number of days between the date of receipt of the wound or of operation and the date of examination should next be computed.

The average daily rate of regeneration should be computed by dividing the number representing the length of the zone of formication in millimeters by the number representing the days of the period of regeneration after 20 has been deducted from the latter. The deduction of 20 is to compensate for the period necessary to permit recovery from the retrograde changes following section, this having been found as a fair working average.

The average daily rate of regeneration in young healthy subjects is between  $1\frac{1}{2}$  and 2 millimeters per day. A rate of over 2 millimeters, even as high as  $2\frac{1}{4}$  millimeters is occasionally found. In older subjects the rate is less and may be not more than 1 millimeter per day.

The intensity of the formication as determined at the lower limit must now be compared with that elicited at the upper limit. When regeneration is satisfactory, the intensity of formication below the level of the lesion is always as great as that above.

In cases of complete or almost complete section a very few fibres may succeed in penetrating the scar tissue between the ends and in finally reaching the peripheral segment. If the number of fibres which penetrate the distal segment is small, they commonly fail to reach the extremity of the limb, so that a sub-normal average daily rate of regeneration of comparatively little intensity indicates complete separation or the pres-

ence of a neuroma which will not permit satisfactory regeneration and warrants surgical interference.

If the zone of formication is shorter than it should be according to the duration of the period of regeneration, it must be determined whether there is a second lesion, perhaps one wholly unsuspected, not a rare occurrence in war patients with multiple wounds.

#### CONSIDERATION OF THE CRITICISMS OF THE TEST

A full consideration of the criticisms of the test cannot be fully gone into at this time, but are to appear in a later publication.

The presence of formication with complete interruption of the nerve is the most common objection raised by various writers.

The speaker agrees with the statement that formication is frequently present with complete section of the nerve and more or less separation of the nerve ends. This formication is due to the penetration of a few sensory fibres through the scar tissue and into the peripheral sheath. A few nerve fibres pursuing an indirect course through scar tissue and between widely divided nerve ends may be inconspicuous at operation so that the case will be classified as one of complete section. In these cases formication is habitually of little intensity as compared with that elicited at the proximal nerve end, and the rate of regeneration is frequently sub-normal, so, with the technique advocated in this paper the diagnosis of complete separation should be made in these cases.

Another frequent criticism is that the formication elicited is no indication as to whether the proportion of regenerating nerve fibres will be sufficient to result in satisfactory recovery. A comparison of the intensities of the formication as recommended above will negavate this objection.

A third and frequent objection is that formication is found at a lower level than regeneration could possibly account for. This comes from the failure to mark the limitations and accurately measure the zone, and to avoid stimulating the nerve at a distance by relieving the tension on the shortened nerve. We have no laboratory evidence to answer the objection that the rate of regeneration of sensory fibres is not the same as that of motor fibres, but our clinical experience allows us to state that there is a close correspondence between the two.

Much of the criticism depends upon the misconception that the presence of *any formication* means regeneration and contraindicates surgical intervention.

#### THE VALUE OF THE TEST

Complete interruption is indicated by fixity of formication at the level of the lesion on repeated examinations, or by formication of diminished intensity below the level of the lesion and of sub-normal rate of regeneration. Either finding should warrant surgical exploration.

In our war experience we came to feel that a considerable proportion of cases should be operated on comparatively early, about three to

four months after healing of the wound, not alone for the direct exploration of the nerve, but for the removal of large adherent scars. The patients appreciated the removal of these unsightly scars and the vascular disturbances were usually less after such surgical procedures. The formication test rendered such early operations devoid of danger in that formication of good intensity and of normal rate below the lesion called for a neurolysis instead of resection and suture in doubtful cases.

The formication test gives definite evidence of regeneration long before muscle reflexes appear or before voluntary motion becomes possible. It frequently tells us when a suture has been unsuccessful, as may happen when the ends pull apart after having been sutured under some unavoidable tension.

There are additional minor points of value in the test, in that it often indicates the position of a neuroma under a long scar and helps in locating the nerve ends at operation and in telling whether a suspicious palable mass is a neuroma or not, or in revealing a second unsuspected lesion, and finally, it is of great value in helping to keep up the morale of the patient during the long period before the reappearance of voluntary motion.

240 Stockton Street, San Francisco.

#### EXPERIENCES IN TESTICLE TRANS-PLANTATION.\*

By L. L. STANLEY, M. D., San Quentin, Cal.

During the past two years eleven men have been operated upon at San Quentin prison for the implantation of human testes taken from recently executed convicts.

In the past four months, twenty-one have had implanted in them testicular material taken from young rams.

This work was done to substantiate, or disprove the assertions and claims made by various writers, particularly Lydston of Chicago, whose reports have appeared in medical journals, and later by Voronoff of Paris, and Brinckley of Milford, Kansas, who through the daily press under their own signatures have made statements which have aroused the curiosity of the public and have instilled into some unfortunates, the hope of longevity and eternal youth.

The first case, reported by Dr. Frank Lydston (in the *Journal of the American Medical Association*, February 8, 1919, volume seventy-two, number six, page 397), operated on at San Quentin Prison in August, 1918, was a man age twenty-five years, who subsequent to a kick in the scrotum at the age of twenty, had had atrophy of the testicles, with diminished sexual activity as well as mental and physical languor.

Two testicles removed from a negro, age twenty-seven were embedded in the pampiniform

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



plexus of the recipient, using spinal anesthesia. The recovery was uneventful.

Three months after the operation the patient had shown considerable improvement physically, mentally and sexually. He moved more quickly, had more expression to his face, and gained fifteen pounds in weight.

Sexually he had frequent erections, even having them in the day time, something he had not experienced since his accident.

In June, 1919, he was paroled to a saw mill, where he served as a car loader. The superintendent reported that he was better than the average laborer, and did his work very satisfactorily.

In April, 1920, he returned to San Francisco. An examination of the implants showed them to have atrophied to the size of cherry pits, but he claimed his sexual activity had not diminished, and that he felt quite energetic. These manifestations contrast markedly from his demeanor previous to the operation.

Cases two and three each received one testicle taken from a Mexican, age 27, who was executed in February, 1919.

Number two was a boy, aged 20, who was kicked in the scrotum in a football game. Atrophy ensued, accompanied by lessened sexual desire and decreased mental and physical activity. After the implant he had frequent erections, and declared that he felt 100 per cent. more passionate, besides feeling better in every way. One year after the operation the implant had atrophied to size of ordinary cherry, but the good effects still persisted.

At the present time, fourteen months after, there has been no diminution of the benefits derived and the patient feels fine.

Number three, age 50, had impotence following an orchitis. With his lack of sexual powers there was also a diminished mental and physical vigor. Following the implantation he became more alert, brighter, and had daily erections. He asserted that he felt better than he had for years, and that his passion was as great as it had been when he was twenty-one. After eight months the implant had reduced to about half the size, and the libido sexualis had somewhat decreased. Consent was given to have the graft removed.

Microscopical examination showed it to be entirely necrotic, with slight ingrowth of cellular connective tissue into the necrotic capsule.

Case four, age 50, had testicles injured in 1910. His general health and sexual vigor diminished.

In June, 1919, two testes removed from a man age 26 were grafted on to his own atrophied glands, by cutting flat surfaces on the testicle of the recipient, and on the ingraft, sewing them together with Lembert sutures. The wound healed well, and the patient had an erection five days after the operation. From this time on he has had daily erections, with no diminution in his libido sexualis. He has improved in demeanor, is energetic, enjoys living, and has gained in strength and in weight, from 150 pounds to 194 pounds. The oculist reports that this man's eyesight has

improved fifty per cent (50%), and the patient himself often speaks of the improvement.

*Patient five*, age 70, had double testicle anastomosis. There was some sloughing from both sides after a week, but in spite of this the patient derived much benefit, not only in physical well being, but in mental alertness. He continues after eleven months to have frequent erections, and often remarks about his good health and high spirits, which he attributes to the gland transplantation.

This change for the better is noticeable by daily observations of him.

*The sixth patient* was operated on in July, 1919, two testes removed from a Japanese, age 38 being engrafted. This man claims to have always been strong sexually, although his testicles were atrophied to the size of almond kernels, due to injury when age 16. His actions, and general characteristics were rather feminine, having broad hips, abnormal obesity, high voice and many female mannerisms. Two weeks after the operation both implants began sloughing, and within a month had been almost entirely thrown off. The patient declared he had received no benefit from the procedure, and that his libido sexualis had in no way been affected. It was reported by the choir leader that the voice had changed from a high tenor to a low tenor. This change was remarked by others.

On April 26, 1920, a slice of ram's testicle was imbedded into the abdominal wall of this same patient. Two days later he had an erection, and felt very well.

*Patient seven*, age 44, had been sexually strong up to eleven years ago, when he injured testicle by falling astride scaffolding. In September, 1919, one testicle was transplanted in his scrotum from a Mexican age 37. He had several erections following this, but in ten days the wound broke open and later on most of the gland sloughed out. The patient felt that the operation had little beneficial effect in any way upon him. In appearance he is improved, but this may be attributable to the regularity of prison life. He is anxious to receive another implant.

*Number eight*, negro, age 50, was divorced because of his sexual inability, due to a crushing injury sustained to his testicles.

In September, 1919, single testicle graft was made, the material being taken from same donor as previous case.

Two days afterward, patient had a slight erection. Gradually these erections became more frequent, and with greater libido, much to the patient's satisfaction. There was some sloughing in this case also, but considerable of the graft healed in. This patient experienced a better state of health and mind, and felt much benefited. He likewise stated that his eyesight was better. This was not substantiated by tests.

*Case nine*, age 48, had decreased sexual powers, languor and mental torpidity, since the age of 25, when he fell astride a wheel, injuring his testicles. He never married, and only had sexual desires when full of liquor. Then he had difficulty in

consummating the act. He was sent to prison for lewd and lascivious conduct with a minor girl. Examination and observation showed him to be fairly well developed, and very lazy, dull and inactive.

In July, 1919, a double graft, taken from a Japanese, age 38, was made. Within two days after the operation, the patient began to have erections, and now after ten months there is no diminution. In addition to this, he became alert, and more active, doing his work energetically, and with pleasure. He feels that his whole outlook on life, has changed for the better.

*Number Ten* was operated on October, 1919, one testicle being embedded, and one engrafted. The donor was a Portuguese, age 40. The recipient, age 56, was kicked in scrotum, and for past twenty-five years had had no erections or sexual desires. Three days after the implant, he had his first sexual manifestation in that period. He continued to have erections, felt improved, and experienced renewed vigor. Recently the implant broke through the surface, and some of it came out, but the graft is intact, and only slightly diminished in size. But with this man there has recently been a diminution in his sexual desires. The effect is probably wearing off, although he feels very well otherwise.

Case eleven will be reported in full at another time.

On account of the scarcity of human material, it was determined to use the testicles taken from young rams.

Two old men were selected, who had been devoid of sexual activity for years. On January 21, 1920, these men were operated on with spinal anesthesia, and the whole ram's testicle (about the size of a turkey's egg) was placed in each scrotum.

In one case, F., pressure necrosis set in within a few days, and within a week the whole gland came away. Some connection by plastic material had been made to the graft as it clung to the scrotal tissues when being removed. This patient derived no benefit whatever from the implant. On April 27, 1920, a slice of ram's testicle was implanted in his abdominal wall.

The other case, P., retained the gland for three weeks but after this time, much of it sloughed out.

However, this man, age 75 years, had nightly erections and improved very much physically, following the operation. He had been sexually dormant for five years, up until this time. Officers of the prison who did not know that this man had been operated on, remarked about the change in his appearance and actions.

Believing that the sloughing occurred as a result of the large size of the implant, three cases were operated on March 11, 1920, using only half a ram's testicle. One of these was a sexual neurasthenic, who felt improved after the operation, and had increased sexual vigor, but lately reported that he felt the work had done him no good.

*The second case* was a physician suffering from

paralysis agitans. He had a good erection three nights after the operation, but his tremor seemed to have been increased. Three weeks afterward, he reported that he felt all right but could not tell just how much he had been helped.

*The third case* was a boy, age 20, who had a testicle removed following a hernia operation. He had increased sexual activity, and improved mentally. In all these three cases much of the implant sloughed after a week.

On April 3, 1920, two cases were operated on by placing only a slice of the ram's testes in the scrotum over the pampiniform plexus.

Of these cases, K., age 35, had had seminal vesiculectomy in 1918, since which time he has been impotent. Two days after the implant he had an erection, and has continued to have them almost daily.

Case W., a negro, age 45, had had sexual lassitude for two years. The second day after the implant he had erection, and has had one daily since. One month after the operation the wound opened up, and most of the gland sloughed out.

Of the other two cases, in this series of four, the slice of testicle was placed in the abdominal wall. There has been no sloughing, and the patients have felt better. Although these men are older than the other two, being 59 and 66 respectively, they have had only a few erections.

On April 27, 1920, seven cases were treated with slices of ram's testicle in the abdominal wall. These were implanted twenty-four hours after removal from the ram. On April 29, 1920, three more were operated on, using the same material which had been frozen in vaseline for seventy-two hours. It is too short time to yet record the results in these cases.

But now after two weeks, all of them seem to have been benefited, and sexually stimulated, except one who has a pleural effusion and is quite ill.

On May 4, 1920, three men were implanted with slices of ram's testicle which had been frozen at 12° F., in vaseline for eight days. So far the effects seem to be as good as with the fresh.

In conclusion it may be said that the implanting of testicular material has a stimulating and invigorating effect upon the recipient sexually as well as mentally and physically.

The implant does not live but becomes necrotic. But in this process of necrosis certain unknown substances are probably released into the system.

The glands of rams seem to be as effective as the human.

These glands may be preserved for a week, and perhaps longer, by immersion in vaseline and freezing.

There seems less likelihood of the implant sloughing out, when placed in the abdomen, than in the scrotum.

With the abdominal implant the patient need be in bed for only one day.

Any means which will increase the physical well being of an individual, as this process does, will tend to increase longevity.



## URETERO-PYELOGRAPHY AND CYSTOGRAPHY.\*

THEIR PRESENT STATUS AND SAFETY AS  
DIAGNOSTIC AGENTS.

By GEO. G. REINLE and E. SPENCE DEPUY, M.D.,  
Oakland, Cal.

Since, through the injection of shadow-casting material into the ureters, kidney pelvis and calyces it has become possible to obtain silhouettes of this portion of the urinary tract, the question naturally arises as to whether the results obtained from this procedure are of scientific value. And as we are also, through use of the same media enabled to obtain shadow pictures of bladder outlines, whether this is of any importance to us? If uretero-pyelography and cystography are of assistance to us in making a diagnosis and forecasting an outcome it is of moment whether the information obtained through these procedures has been acquired through peril to either the patient's life or even delay of his return to a normal condition.

To answer these questions with satisfaction to ourselves, determining how far merely scientific curiosity was carrying us, and whether our efforts worked for the patient's good or his harm, we have, besides scrutinizing our own work rather critically, had occasion to make a rather careful search of the literature.

Inquiring precisely as to the information presented to us by studying the silhouette of the distensible portion of the kidney we find that we are able to judge the size of the kidney pelvis, discover whether or not it is deformed, and also whether the major and minor calyces are of abnormal size or shape. Such information as to mere size of the hollow portions of the kidney is of small value for, as Hinman has pointed out,<sup>1</sup> mere distortion or deformity of the kidney means little and the important question must be viewed in terms of kidney functions.

Nor is it necessary to take pyelograms to determine the size of the pelvis of the kidney, for this may as easily be determined by measuring the quantity of water the pelvis will hold.

As to shape of the calyces we may learn, of course, whether the calyces are clubbed, and whether they are distorted by external pressure, thus indicating to us a resistance to emptying which easily might not be perceptible through resistance to the catheter. These are valuable diagnostic points and to be ascertained through no other means than pyelography.

Also through pyelography in the presence of a renal calculus we are enabled to at times determine upon the exact location of the calculus as we may not in any other manner.

So then we have demonstrated through a study of the pyelograms that certain highly valuable informative points are to be so obtained that may not be demonstrated in any other manner.

Considering, as if it were a separate matter, the shadow of the injected ureter, first, we may learn

the angle at which the ureter leaves the reservoir it is intended to drain. This, through symptoms, we may have assumed, but in no other manner may we prove it.

Ureteral kinks, also, are to be demonstrated through study of the ureterograms, and not infrequently the acute kink and the double kink we so discover afford us such important information as we might have otherwise been compelled to grope for in the dark. The stricture of the ureter also, another one of the conditions we may not always depend upon our sense of touch to discover during ureteral catheterization, when demonstrated in the ureterograms stands out as incontrovertible evidence.

These special conditions, then beyond doubt it is to the patient's interest for us to demonstrate, and, as the evidence is available through no other method than that of uretero-pyelography we are not only justified but obligated to use this procedure provided it be proven harmless, whereas on the other hand, if there is any danger connected with it or if any damage may follow, we are equally obligated not to use it.

As to safety we can probably best form an intelligent opinion by a brief survey of the technique from the earliest time to the present. Brassch<sup>2</sup> gives what is probably a better account of the first steps than anyone else. The earliest media used was collargol, and since that time various preparations, such as argyrol, cargentos, and other silver emulsions have been used. These silver emulsions beyond doubt caused great damage and upon more than one occasion resulted in death of the patient. While there were yet no other media available we find many urologists of high standing, while regretting unfortunate results yet extenuating the method.<sup>1 2 3 4 5</sup>

As a matter of fact emulsions of any kind we know now are only to be condemned, though the first step toward safety was not made until Burns<sup>6 7</sup> brought to our attention Thorium in solution. It is of small moment, that even recently we find men of prominence defending the older methods with the excuse that if there is damage even in the face of good technique it was a surgical kidney anyway. What we require is methods that will not make even the worst kidneys suffer anything we may do, and this is disproven for silver emulsions.

Thorium was such a notable advance in technique that it appeared for a while, and to many even yet, that nothing better could be even hoped for. But is this true Thorium has, to be sure, the advantage of being a solution and not merely a suspension, but is a nonabsorbable solution. In our own work we have had many severe reactions following Thorium. These reactions have never been sufficiently alarming to cause apprehension as to a probable fatality to be sure, but they have caused patients undoubtedly to be temporarily worse. These reactions are accounted for by Weld as due to the age of the solution.<sup>11</sup>

We were ourselves searching for a new media when Cameron<sup>8 9</sup> proposed sodium iodide and

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

sodium bromide. The iodides to our mind are the last word in safe satisfactory media. We have yet to note a reaction accompanied by a rise of temperature. There has been after distress, to be sure, but not greater than was to be accounted for a first ureteral catheterization. The iodides possess the further advantage of also being absorbable by the tissues, so that should the solution not drain off it is taken up by the cells and disposed of. The iodide solutions are, we believe, safe beyond any question whatever when employed with reasonable caution as distending media.

As to cystography, if we may for convenience consider first the matter of safety, the subject can be dismissed without discussion further than has been given to the ureter-pyelogram. We have then a viscus, which, though it will not stand unreasonable abuse, when treated with as much consideration as we would show the kidney, need give us no cause for apprehension as to damage.

We have then merely to question whether bladder silhouettes are of much worth to us. Until within the past year we find no record of the making of cystograms of all bladders presenting abnormalities. To Hinman<sup>10</sup> probably more than anyone else is due credit for calling attention in a particularly forceful manner to the advantage of routine cystography.

Through cystoscopy we may or may not demonstrate the openings of diverticula, according to the clarity of the bladder media in which we have to conduct our examination. But it is axiomatic that there is a diverticulum, and the pouch beyond may be shallow or it may be as large as the bladder itself,—the cystogram only presents the facts we require.

The contrast cystogram, also, we have found of the utmost importance, for if the pouch lie elsewhere than lateral to the bladder shadow of the picture will show nothing of it. By filling the bladder with opaque solution, however, then draining and distending with air, we secure proof not to be obtained by the simple cystogram.

In further proof of the value of the type of evidence discussed, we offer the uretero-pyelograms and cystograms about to be shown, and at the same time desire to acknowledge our indebtedness for the Roentgenographic work to Dr. A. C. Siefert whose earnest co-operation has lightened many of our burdens.

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## THE PROBLEM OF THE HOSPITAL DIETITIAN.

By AGNES FAY MORGAN, Ph. D., and  
ALICE H. METCALF, A. B.

The University of California, Berkeley.

The position of dietitian in hospitals may be regarded as new enough still to be in process of standardization, both as to the training and capacity expected of the dietitian, and the scope of her duties. The evolution and separation of this position from those of chef, house-keeper, nurse, and physician is as yet neither complete nor definite. It has seemed worth while, therefore, at this time to publish the results of a brief survey of the status of this profession in certain California hospitals, and to suggest tentative standards for both the training and the duties involved.

### 1. *The Training of the Hospital Dietitian.*

The preparation expected of the dietitian should be distinct from that of anyone of the four types of hospital officers and employees listed above as contributing to the new profession.

The dietitian should understand the principles underlying the cooking of food, and should appreciate and to some extent duplicate the technique of the chef; she should have a grasp of the executive and purchasing function of the housekeeper or steward; she should know the ethics and the devices of personal care of patients usually possessed by the nurse; and she should have the scientific and responsible attitude and information of the physician in matters of metabolism and digestion. But in none of these fields should she be expected to usurp functions now performed satisfactorily by the persons mentioned. She must work with all four of these officers, supplementing with scientific care and thoroughness in the choice and preparation of the patient's food their less specialized contributions in the same matter. Her training must therefore approximate more nearly the physician's than the nurse's.

The dietitian should be a university trained man or woman with at least five years of study beyond the high school. The course should include sufficient pure chemistry, physics, physiology and bacteriology to make the student familiar with the scientific method both in laboratory technique and in reasoning from data. Detailed study of food, urine, feces and blood analysis, practice in the control of feeding experiments by laboratory tests, experimental cooking, food economics, and the calculation of special diets, should form the major portion of the specialized work. This training is usually given in biochemistry and dietetics courses, and should be supplemented by a graduate year of practice in the hospital diet kitchen and laboratory and clinics under proper supervision. On successfully completing such a course the candidate might be given a graduate degree or title or diploma, which should be required of all persons desiring to enter the profession of dietitian.

### 2. *The Duties of the Hospital Dietitian.*

The distinction between the executive duties of the housekeeper or steward, and the scientific



advice, calculations and control offered by the dietitian should be definitely established. The employment and management of kitchen and dining room employees, the purchase, distribution, and care of food supplies, and the direct supervision of the main kitchen are duties calling for business and executive ability and experience rather than scientific training. Such tasks should be performed by a steward or housekeeper, with the oversight and advice of the dietitian particularly as to menus.

The instruction of student nurses in all matters pertaining to the use of food is distinctly in the province of the dietitian. The planning and preparation of special diets and milk formulas, together with the direction of the metabolism ward and nutrition clinics should form the chief function of the dietitian. She should in all cases of course consult with, and remain responsible to, the physician in charge, but her information and judgment should be such as to command this position of helpful co-operation. In short, the dietitian should represent a new highly specialized type of service to the sick, and should not be classed either as a "dietetical cook" or "trained housekeeper."

### 3. *The Status of the Hospital Dietitian.*

The dietitian who presents education and capacity of the type described above ordinarily has no difficulty in establishing her status satisfactorily. Unfortunately women of this kind are few in number at present among so-called dietitians, and are still laboring under the disadvantage of standing produced by the confusion of the housekeeper-steward duties with those properly referred to the dietitian. The standing of the latter and the salary corresponding, should be that of a profession much more exacting in requirements of training than the nurses, and only less rigorous than that of the physician. The dietitian should in no case be considered responsible to the superintendent of nurses, but directly so to the superintendent of the hospital and the medical staff.

### 4. *The Training Course Offered by the University of California.*

The division of Household Science of the Department of Home Economics, in co-operation with the University of California Medical School and Hospitals, offers a year course of graduate work, designed to furnish the practical as well as theoretical training for the profession of dietitian. Candidates who enter this course must hold the degree A. B. or S. B. with major in Household Science, or present evidence of equivalent training.

This course involves six months at least as practice dietitian in the hospital, the equivalent of six months of clinic and laboratory practice, and the active prosecution of a problem in metabolism, in clinic, or in some other related field.

Upon satisfactory completion of this problem, and of the prescribed credit-bearing courses to be included in the year curriculum, the degree of Master of Science, is awarded the candidate.

*Curriculum.* The twelve months of the dieti-

tian's graduate year is divided into three parts. Students are admitted to the course June 1, September 1 and February 1, and rotate through the various services in accordance with the grouping established by these admissions. Seminar courses in nutrition and diet in disease held at the hospital throughout the year by the department must be attended by these candidates.

1. The specialized practice period of four months is spent in the diet kitchen under the supervision of the chief dietitian. During this period practice and instruction in the following duties are provided:

- (a) Planning and preparation of trays for private patients.
- (b) Preparation of modified milk formulas.
- (c) Marketing.
- (d) Making out of menus and requisitions.
- (e) Planning and preparation of special diets.
- (f) Instruction in nutrition and cookery given to nurses.

2. During the second period of three months the student attends the children's and other clinics, and follows up such cases as seem amenable to dietetic treatment. This is carried out under the supervision of the physician in charge of the clinic.

The student spends a portion of this time, approximately one-half, in the laboratories carrying out analytical and statistical operations under the supervision of the physician in charge of the research and metabolism work of the hospital.

3. The individual problem period of five months during which the student continues specialized responsible work under the chief dietitian, but with change of assignment, and to a lessened degree, so that only one-fourth of her time is devoted to this duty.

A research problem, acceptable to the department and the hospital management, is selected by the student during the first part of her course. The necessary amount of time in the second and third periods is devoted to this problem and the results of the research embodied in a satisfactorily presented thesis for the master's degree.

### 5. *The dietitian in Los Angeles Hospitals.*

So far, facilities have been provided only for the first or diet kitchen period of this training by the University of California Hospital. It is possible to look forward however to the provision at some future time of the more difficult and desirable second and third period of the plans.

During the summer of 1918 the opportunity presented itself to make a survey of the work and status of the dietitians in seven of the larger hospitals in Los Angeles. This survey was undertaken at a time when interest in the training of dietitians for war service both at home and overseas was most noticeable. A larger number of practice or apprentice dietitians was in training in hospitals everywhere than at any previous time. As yet, however, no definite standard either for the training of the dietitian or for her duties had been established.

It seemed of interest, nevertheless, to discover what conditions existed in the larger institutions

in and about Los Angeles, in San Francisco, in state and county institutions, and in private sanitariums in the smaller cities and towns of the state.

The following statement applies to the Los Angeles hospitals in the summer of 1918. There have been changes in personnel since that time in these institutions, but no substantial change in policy.

#### 1. *The Number of Dietitians.*

In every case only one dietitian was employed, there being no paid trained assistant. In four of the hospitals practice or student dietitians were in residence for varying lengths of time, from one to six months.

#### 2. *The Training of the Dietitians.*

Out of seven dietitians visited only one was a university graduate. This one, however, was exceptionally qualified, being an M. D. in addition.

Five of the others were normal school graduates, and one was a graduate nurse with no special training in dietetics.

#### 3. *Duties of the Dietitian.*

The duties of the dietitian vary so greatly in the different hospitals that it is difficult to make any coherent summary of them. They may be classified roughly, however, as follows:

(a) *Buying and checking of food supplies.* Four out of the seven performed this duty, in the other three cases this was done by the steward, housekeeper or purchasing agent.

(b) *Managing and hiring of kitchen and dining-room employees.* Three of the seven included this among the dietitian's duties.

(c) *Making out of the special diets.* Every one of the dietitians visited claimed this as part of her work, but from actual observation it was plain that the supervision of the cooking of the food for these diets by the nurses constituted the dietitian's only responsibility with regard to them. The physicians found it necessary to make out specific directions for such diets in every institution, except one.

The milk formulas were in some cases put up by the nurses under the supervision of the dietitian, in others under the direction of a graduate nurse in the wards.

(d) *Making out of menus* for the hospital tables, and general diets. In six of the hospitals the dietitian co-operating with the chef made out these menus, in one the housekeeper and chef performed this duty.

(e) *Inspection of trays.* This is one duty which all the dietitians performed. In some of the smaller hospitals all the trays are sent up from the main kitchen, the dietitian thus having immediate supervision of all the trays. In the larger institutions where the trays are prepared in the various ward-kitchens such supervision is lacking.

(f) *Assistance in metabolism experiments.* Only one of the dietitians visited was sufficiently well trained to assist in such work, and none of them had the opportunity.

(g) *Teaching the student nurses cooking and dietetics.* Four out of seven of the dietitians teach cookery and dietetics to the student nurses. In

three of the hospitals arrangements had been made with other agencies, such as the Y. W. C. A., or high schools, for such teaching outside the hospital.

#### 4. *Salaries.*

The salaries ranged from \$55 to \$125 per month. The one dietitian receiving the latter salary acted as housekeeper as well, having charge of the main kitchen as well as the diet kitchens. Her training was not the best, but her practical executive ability, perseverance and endurance, combined to make her work perhaps the most successful of any of the seven. Part of this success is probably due to the fact that she had only a small institution to serve, some 80 beds.

Specifically, the salaries were:

\$55.....	1	\$ 85.....	1
60.....	2	100.....	1
75.....	1	125.....	1

In all cases room, board and laundry were given in addition.

#### 5. *Hours.*

Nominally, the working day was 8 hours, but actually since the dietitian was responsible for the getting out of the three daily meals, she had to be more or less on duty from 6 a. m. to 6 p. m. Of course, between the dinner and supper tray supervision there were usually two or three hours during which the dietitian might be off duty.

Ordinarily the dietitian has one day to herself each week, or an afternoon each week and a day every other week. She is allowed the regulation two weeks' vacation in the summer.

#### 6. *Status.*

In general, the dietitian seemed to be regarded as on independent and equal footing with the superintendent of nurses. However, in two of the hospitals the dietitian was definitely under the authority of the superintendent of nurses, and in one other, the dietitian, although declaring herself independent, had to ask the permission of the superintendent of nurses for the proposed visit to the diet kitchen.

#### *Conclusions.*

Two general statements might be made as a result of this incomplete study of the dietetics departments in representative Los Angeles hospitals:

1. The dietitians employed are inadequately trained.

2. The duties assigned them are more those of executive housekeeper than scientific dietitian.

The second of these statements may well be assumed to follow as a consequence of the first.

It is to be hoped that with the gradual appearance of dietitians capable of the specialized scientific service with regard to diet, which is described in this paper, and which forms the basis of training in the University of California and in a number of eastern institutions, that the larger hospitals at least will avail themselves of the opportunity presented.

The registration or licensing of dietitians by the State Board of Health is urged as the first definite step toward the standardization of the profession.



DR. H. A. L. RYFKOGEL, RETIRING PRESIDENT  
OF THE MEDICAL SOCIETY OF THE STATE  
OF CALIFORNIA



Dr. H. A. L. Ryfkogel; born in Nova Scotia, August 11, 1873; graduated from the medical department of the University of California 1894; demonstrator of anatomy medical department of the University of California 1894 to 1896; instructor in clinical pathology M. D. U. C. 1896 to 1904; instructor in bacteriology 1904 to 1906; M. D. U. C. member of the Oakland Board of Health 1896 to 1899; bacteriologist to the State Board of Health 1907 to 1909; professor of surgery San Francisco Polyclinic Post Graduate School 1904 to present date; surgeon San Francisco Hospital 1904 to present date; president of the San Francisco Polyclinic Post Graduate School 1919; lecturer in surgery Stanford University Medical School 1918 to present date; member of the council of State Medical Society 1908 to date. Fellow of the American College of Surgery 1914.

## Minutes of the House of Delegates

### THE FORTY-NINTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

#### FIRST SESSION

Held at The Ambassador, Santa Barbara,  
Tuesday Evening, May 11, 1920,  
8:30 O'Clock.

#### ROLL CALL

The roll being called, eighty-four (84) Delegates were found to be present. The President, H. A. L. Ryfkogel, in the chair, declared that a quorum of Delegates was ready for business.

#### REPORT OF THE PRESIDENT

The President then made the following report:  
To the Members of the Medical Society of the State of California:

During the past year the activities of the Society and its membership have been greatly enlarged. The reports of your various officers will give you in detail what has been accomplished.

As Dr. Kenyon has told you in the report just read, the Council has met many times and has devoted much thought to the Society's interest.

I wish to thank the executive officers and the staff for their unswerving interest, loyalty and efficiency.

The Editor of the Journal, Dr. Reed, has developed the Journal until it is undoubtedly the best state medical journal in America and the Society rests under deep obligation to him for his unceasing efforts.

Your attorney, Mr. Hartley F. Peart, has not only evolved the best system of malpractice defense possessed by any medical organization but has also given our profession an exceptional friendship that comes from a thorough understanding and devotion to the highest ideals of medicine.

I wish also to express my gratitude to the Society for giving me the opportunity to serve them during the past year and to thank them for their hearty co-operation in all the work of the organization.

#### APPOINTMENT OF THE REFERENCE COMMITTEE BY THE PRESIDENT

The President then appointed the following Reference Committee: Jas. H. Parkinson, Chairman. Sacramento; Fitch C. E. Mattison, Pasadena; Morton R. Gibbons, San Francisco, and Hartley F. Peart, San Francisco, General Counsel, ex-officio.

#### REPORT OF THE COUNCIL

The President then called upon the Chairman, C. G. Kenyon, who read the following report of the Council:

To the President and the Members of the House of Delegates:

As Chairman of the Council, I wish to present the following report:

During the year 1919-1920 the Council has met upon seven occasions. The majority of these meetings were called to consider the subject of the Industrial Accident Insurance. The committee which had this work in charge has labored most strenuously and done more actual work than any one not familiar with the situation could realize. The Council has summed up the work of this committee, and this matter will be presented to you in proper form later on. It must be stated, however, that the fee schedule problem is one having many angles and very difficult to solve. The results of our deliberations can only be termed a compromise report. It is a step in the right direction and we can only make one step at a time. An effort of this sort will bring good results and more good to the profession at large than any sporadic and ill-considered action on the part of isolated units in the Medical Society. We therefore ask you to have patience and promise that the Council, if authorized, will continue its activity on behalf of the practising profession.

During the past year the Council has also developed a campaign for new members, and our agent, Mrs. Berry, has been through the State canvassing the field of non-members and making a survey of the medical situation. She has been able to report 221 applications for membership. At the present writing it is impossible to say how many of these have been accepted, but we do know that so far we have increased our total number by 191 members. In her work Mrs. Berry

interviewed 550 physicians, and they represent the outsiders. From them she gained many points of view which may be useful to us in governing our Society in the future.

The legal defense continues to be a very important part of the Society's work, and we have been universally successful in protecting our members from suits for alleged malpractice. The work in this department is demonstrated to be of the highest order and the protection which we give our members is superior to any that they may possibly obtain. In addition to perfect legal protection, we have 675 members in the Indemnity Defense Fund, and I wish again to call your attention to the value of joining this inter-indemnifying association. We should have 2000 contributors to this Fund. The assessment is \$30 and this is not annual. The \$30 paid by the charter members has given them protection for three and a half years. Assessments made in the future will probably be much less than this amount, and it is estimated that the Fund can be run upon a basis of less than \$10 per year. No suit against any member covered by the Fund has been lost, and the interest on the money in the banks has been sufficient to cover all expenses against this account.

The Journal continues to pay for itself through its advertisers, and it is the largest Journal we have ever printed, containing more scientific material and more pages than any other State Journal. Its standard of excellence speaks well for the editor and the contributors. It must not be forgotten that the old California State Journal of Medicine is conspicuous for ethical advertising. Through its past editor, Dr. Philip Mills Jones, it was the pioneer in this work, and we hope to keep the standards at the high mark set by Dr. Jones.

The Roster of Members for this year has been compiled and has been sent to each with the May issue of the Journal. The work has been made very difficult because of the many new members who have come in, and the many changes of address. Nevertheless, it is complete to April 1st. You will notice that it contains only members of the Society, giving their name and address. No attempt is made to give full information on the subject of any man, nor have we scheduled non-members. A complete list of this sort is printed by the State Board of Medical Examiners, and there is no necessity for duplication of these data. It is intended solely for reference and information concerning the address and to let you know who are your fellows in the Society.

The office of the State Medical Society continues to run in a harmonious efficient way, keeping its records and accounts in the most approved manner.

The finances of the Society are in excellent condition, as you will learn from the report of the Auditing Committee. In spite of the ascending scale of prices and the fact that we voluntarily increased the salaries in our office, and that the cost of printing has gone up more than 25 per cent, we are still able to run the Society successfully without increasing our annual dues.

It would seem from this report that the State Medical Society has increased in size, that we are on a firm financial basis, that its publication is a success and a credit to the organization, and that we are making progress and solving the many problems which confront the profession and its relation to the world in general. Your Council tries to represent you in all matters and to carry out the wish of the profession at large. It welcomes at all times communications from you presenting matters of interest and complaints. It will in the future attempt to maintain the good record which it has made in the past.

## REPORT OF THE EDITOR

The President then called upon the editor of the California State Journal of Medicine. Dr. Alfred C. Reed made the following report:

The last twelve issues of the Journal speak more eloquently than words of the successes and failures of the year. A constant effort has been made to keep in close touch with all units of the State Medical Society; to maintain a satisfactory standard of practical papers, and to reflect the desires and policies of the Council. Particular attention has been given to social, economic and public questions as they affect the physician. While it has been considered that a high standard of original articles should be maintained, yet our policy has been to avoid the dangers both of ultra-technical and too narrowly specialized papers, as well as text-book quotations and commonplace descriptions.

Again this year as last year, the Journal reflects too much an indifference on the part of the members of the Society as to its contents and policies. The correspondence column is always open and should be used much more than it is. The new Immunity Department affords opportunity for any member to rid himself of a private or public grouse; to say what he really thinks; and to attack evils anywhere, under the mantle of no signature. The only requirement is that communications be not libelous, and that their writer's name be known to the Editor.

The Clinical Department of the Journal ought to afford much profit to its readers. This department was originally intended to be filled with short, concise case reports from doctors outside the large cities. The single response, however, was received from a doctor not a member of the State Society. The plan was therefore changed, and each month this department contains a complete case report from the Children's Service of the University Hospital, San Francisco. The wide attention attracted by the Hospital Service Department shows the interest it has aroused and the practical value of the information and suggestions in it. Once more your attention is invited to the Department of Pharmacy and Chemistry, ably conducted by Dr. Felix Lengfeld—a department always repaying your time and study.

Increasing paper and printing costs, and the danger of an actual shortage of paper at any price, has precluded the development in size of the Journal, which had been anticipated before this. It is strongly hoped that at an early date the size of the Journal may be doubled. It is believed such a growth would materially aid in developing the State Society. It is, moreover, evident that there is an abundance of scientific papers available in the State to fill a Journal of such capacity. It is even hoped that the California State Journal of Medicine may eventually ultimately in a great Pacific Coast Journal, representing the entire coast and Pacific islands.

Beginning with the present annual session the Council has authorized the editor to accept for publication in the Journal only such papers from the State meeting as meet certain fairly definite requirements of length, interest, and original material. As heretofore, all papers read before the State Society and its sections become the property of the Journal. Of these, the ones not deemed suitable for Journal publication will be returned to the writers promptly, so that they may appear in more technical or specialized journals. At the urgent solicitation of the editor, the Program Committee, as you are advised, has ruled for strict enforcement of the rule requiring a copy of each paper to be in the hands of the chairman or secretary of the section, before the paper is presented.

Finally, your co-operation is urgently solicited in building up the Journal. If you do not like it,



tell us why. If you do like it, say so. Send in letters for Correspondence and Immunity columns. Let us know the medical problems of your district. It is your Journal. Assert your proprietorship.

### REPORT OF THE AUDITING COMMITTEE

The President then called upon René Bine, Chairman of the Auditing Committee. Dr. Bine stated in substance the audit of the public accountants.

### REPORT OF THE SECRETARY

The President then called upon the Secretary, Saxton Pope, who made the following report:

It is customary every year for the Secretary to make a report concerning the membership and the finances of the Society, as well as the general running of the State office. These matters have been covered before in the reports from the various officers of the Society.

Through our efforts to gain new members last year we have increased our membership to 2879. This work goes on and it shall be continued during the coming year until we shall undoubtedly exceed the total number of 3000 physicians in the State. In conjunction with the increase in membership, our representative, Mrs. Berry, is seeking subscribers to the Indemnity Defense Fund. There is no reason why this Fund should not contain the majority of the physicians in the State Society. It is undoubtedly the most economic and most efficient method of obtaining protection against unjustified malpractice suits. For those who do not understand the object of this Fund, I must again state that all members are defended in cases of alleged malpractice, but as a member of this Fund if we lose the case you are reimbursed for this loss up to \$5000.

While the finances of the Society are in excellent condition, we must still practice rigid economy and careful supervision to meet the increased financial demands of the times. Our members have paid their dues more promptly than usual this year, and we feel correspondingly grateful to them.

The State Society office has been conducted in an efficient and harmonious way during the last twelve months, and it again offers you the hospitality and its service whenever you come to San Francisco.

### UNFINISHED BUSINESS

#### Adoption of the Report of the Committee on Industrial Accident Work

The President then called upon Jas. H. Parkinson, Chairman of the Committee appointed by the Council, for a final report of the work which had been accomplished by said Committee on Industrial Accident work. The report is as follows:

In presenting its report, the Committee felt that it was best to include a brief summary of the steps leading up to the present situation. This has been done, for the purpose of completing the record and particularly for correcting it by setting forth clearly and definitely the specific action of the Society.

At the Santa Barbara meeting in 1919, a Committee on Industrial Accident Insurance, appointed December 19, 1918, by the Publicity Bureau under instructions of the Council at its meeting of July 27, 1918, "to investigate the status and working of the Industrial Accident Compensation law from the standpoint of the patient and of the doctor and to suggest possible remedies by which a more perfect system of compensation procedure could be effected," presented the following report:

1. It seems apparent that no fee schedule was ever presented by this Society. Experience has demonstrated that the absence of an equitable scale of fees and its acceptance by the Industrial Accident Commission has not been productive of the best results. In the absence of such agreement and the financial basis therefor, it is impossible for the Society to offer guaranteed service or ensure against breach of contract by either party. This is evidenced by defective service, fee cutting, fee splitting and open and secret rebating, all of which, in the last analysis, obviously react upon the only person for whom the machinery was originally created, the injured working man.

2. Much that is unnecessary; reduplication, complication and confusion, is involved in the present paper work, all tending to manifest inefficiency. The Committee feels that this should be greatly simplified, that all records should be standardized, and that the principle of one record and one entry, once, should be carried out.

3. The basic factor upon which everything in the Medical Department of the Industrial Accident work is based is the clinical record. The Committee feels that this especially should be simplified and standardized, and that its revision and conservation should be in the hands of medical men. This will tend to eliminate error, insure its early detection, greatly improve medical and surgical work, making diagnosis easier and surgical procedure more definite.

4. The Committee hesitates, yet feels it its duty to make the perfectly obvious recommendation that the examination of doubtful, difficult and complicate cases should be by a Board of Examiners instead of examiners acting as individuals, whose findings must subsequently be collated, possibly through non-medical channels. This involves neither added expense nor change of personnel. It only substitutes definite conclusions for possible indecision and efficiency for inefficiency.

5. The Committee believes that the improvement in medical and surgical service which everyone recognizes as so desirable, can be accomplished on the basis of the foregoing propositions.

6. It recommends that the whole question be referred to the Council for immediate action, with the following specific instructions:

(a) That propositions 1, 2, 3 and 4 be given force and effect.

(b) That in connection with proposition 1, an equitable fee schedule be devised whereby medical and surgical fees will be considered and placed upon the same basis as higher wages and higher premiums due to increased cost of living and increased cost of everything. That the question of a flat fee or of an itemized bill, but, in any case, a greatly simplified bill, be taken up and that the manifest abuse of service at Industrial Accident Rates to high salaried officials and wealthy captains of industry be definitely settled for the benefit of all concerned.

(c) That steps be taken to present the findings of the Council to the Industrial Accident Commission in such shape as to insure a favorable reception.

(Signed) EMMETT RIXFORD, Chairman.  
W. W. BECKETT,  
O. O. WITHERBEE,  
JAMES H. PARKINSON,  
SOL HYMAN, Being Absent.

The report was accepted by the Society, and after some discussion was referred to the Council, "without recommendation," the object as stated by the mover of the amendment being to leave the Council free to take whatever action it deemed best for the interests of the profession.

At a meeting of the Council held April 17th, the chairman was instructed to appoint a committee of three to make the recommendations of the for-

mer Committee effective, and he later announced its personnel as follows: James H. Parkinson, John H. Graves, Gayle G. Moseley.

On June 19th, 1919, the Committee met at the office of the Society. In addition to the members, there were present Drs. Kenyon, Ryfkogel and Hyman and Messrs. Peart and Sullivan.

The whole question of medical and professional remuneration was discussed at considerable length. In order to get at a working basis, Dr. Graves was appointed to prepare and submit a revised fee schedule; in which the flat fee feature would be represented. Drs. Moseley and Hyman, were instructed to prepare simplified report blanks with a view of standardizing same.

On Sept. 23, 1919, a meeting was held at the office of the Society, the full Committee being present. The proposed fee schedule representing a 50% increase, was submitted and revised. The standard report blanks were also submitted and ordered printed.

On Oct. 15, 1919, the Committee through failure on the part of the Industrial Accident Commission to reply to a communication requesting an appointment was only able to hold an informal conference with two of its members at 10:00 A. M. At this meeting the views of the Society were set forth at some length.

On the afternoon of that day the Committee had a conference with representatives of the various companies carrying compensation insurance. The proposed fee schedule was submitted and the question of a flat fee for certain types of surgical cases, debated at length. The proposed standardized blanks were also submitted. That evening a meeting of the committee was held at the office of the Society, at which all members were present, and in addition Drs. Pope, Gibbons, Stoddard, O'Connor and Ryfkogel and Mr. Peart, the attorney, representatives of the carriers, were also present. As all interests concerned were represented, the discussion took a wide range, points of friction and disagreement being especially considered.

Oct. 18, 1919, the Council met, in Los Angeles, Drs. Graves and Parkinson of the Committee being present. A report of the work of the Committee to date was made, which was ordered placed on file and the work of the Committee continued.

Oct. 29, 1919, the Committee met in conference with the Industrial Accident Commission at 10:00 A. M. The Commission expressed itself as favorable to a flat increase of 25%, but it desired to confer with the carriers before reaching a final decision. The Commission decided to discuss the proposed flat fee and the revised blanks at a future meeting.

That evening at 8:00 P. M. the Committee had a conference with the insurance carriers in the rooms of the Board, seven companies being represented. Drs. Gibbons, Stoddard, Ryfkogel and Rixford were also present. An attempt had been made to estimate the increased cost of the flat fee schedule as submitted by the Committee, and this had been placed at 35% to 55%. It was definitely stated by the carriers that any increase in medical fees, was contingent upon the consent of the State Insurance Commissioner to an increase in rates. The question of rebating and of cutting fees was gone into at length, as well as that of brokerage in medical services. In view of the fact that no estimate of the probable increase in rates that would be necessary could be made without an extended research covering several months, it was suggested a flat increase of 25% be agreed to. It was suggested by the insurance carriers, that a standing committee from the Casualty Underwriters Board, and one from the Council of the State Medical Society be appointed, to consider all medical questions in which the doctors and the insurance carriers were mutually interested. It was felt that such a Com-

mittee would be a great benefit to both the insurance carriers and the doctors by bringing them in closer touch and promoting a better understanding and pleasanter relations than had heretofore existed.

At a special meeting held at the office of the Society, Nov. 8, 1919, the 25% increase was submitted, also copies of the proposed blanks. In order to clarify the records, the following preambles and resolutions were adopted:

"Resolved: That whereas although no fee schedule for the rendering of professional services under the Workmen's Compensation Act had ever been adopted and agreed upon by this Society, and

Whereas, The Council feels that the Fee Schedule adopted about 1913, and ever since used by the Industrial Accident Commission and the State Compensation Fund and certain insurance carriers was not adequate in its inception, and not based upon sound economic principles, and has never afforded proper, fair and reasonable compensation to the physicians and surgeons performing such work under said Act, and has never been adhered to, by reason of such inadequacy and unfairness to the physician and surgeon, even by said Industrial Accident Commission and State Fund and Insurance carriers, and

Whereas, the Council and a committee appointed by it are now investigating facts relating to the operation of said Compensation Act in its effect upon the worker, his dependents, the public and the profession; now therefore be it

Resolved, That in the investigation of said matter the Council believes that compensation for medical and surgical services rests fundamentally on the earning capacity of the employee.

Further discussion of the work of the Committee was then had. On the motion of Dr. Ewer, duly seconded, it was

"Resolved, That for the furtherance of the medical and surgical treatment to the injured worker under the Compensation Act, the said Committee proceed with its undertaking of framing and designing satisfactory report blanks for use of physicians and surgeons under said Act, and that the said report blanks bear the name of the Society and, if possible, the same be copyrighted and registered by the Society."

Three members of the Council being absent it was decided to submit the 25% increase to all the members by mail ballot.

A special meeting of the Council was held at the office of the Society, Dec. 6, 1919. The following statement regarding the proposed flat fee as requested by the Industrial Accident Commission was adopted by the Council and ordered forwarded to the Commission:

"The Medical Society of the State of California urges the adoption of the principle of the flat fee for industrial accidents for the following reasons:

1. It follows the custom and general usage of the profession in similar cases.

2. It greatly simplifies recording, bookkeeping and bill making, and lessens clerical work, postage and correspondence.

3. It offers a positive saving in expense to the carrier by fixing a definite fee, eliminating financial uncertainty, and the possibility of over attendance and a padded bill.

4. It fixes as notice to the profession, a time limit in which the ordinary cases should be restored to function.

5. It provides for the extraordinary cases, at the usual rates, which when totaled with the flat fee, it is believed will invariably demonstrate a saving.

6. It places a certain responsibility upon the profession to furnish a result according to contract, and permits the necessary latitude in attendance, which the rendering of a bill, subject to criticism tends to inhibit."

The standard report blanks were submitted by



the Committee, which stated a meeting had been held with Dr. Gibbons of the Commission, Dr. Newman of the Fund and two members of the Committee. The Commission however desired to make so many additions, that a simplified blank could not be maintained. It therefore recommended the blanks be adopted as submitted. They were then adopted by the Council, the Committee being authorized to make any minor changes in them that may be necessary.

In the matter of a communication to the carriers as a basis of agreement for a concert of action, the Committee submitted the following:

"1. The Medical Society of the State of California, in the matter of fees, for industrial accident cases, agrees to a compromise of a flat increase of 25%, and the temporary abandonment of the flat fee.

2. In accordance with the foregoing, the Society agrees to join with the carriers in an application to the Insurance Commissioner for an increase in the premium rates, sufficient only, to cover that part of the medical expense relating to fees.

#### **The Carriers on Their Part Agree**

3. In all cases to pay for medical services, in accordance with the schedule adopted, and neither to seek, nor to accept rebates from same.

4. To employ as far as possible and when available members of the Society, so as to insure the injured man the best possible treatment.

5. To appoint a Committee to consider the flat fee schedule.

6. To appoint and maintain a Committee to confer with representatives of the Society, and with power to adjust matters in dispute between the carriers and the profession."

After considerable discussion as to the ultimate results or legal aspects of such an agreement the attorney was directed to incorporate same in the form of preambles and resolutions and that these be submitted to each councillor for his approval. The following are the resolutions:

"Whereas it appears to the Council of the Medical Society of the State of California, and the Council finds:

That the Compulsory Workmen's Compensation Insurance and Safety Act went into effect in this State about the year 1913, which Act authorized employers and insurance carriers and the State Compensation Fund as a carrier (said Fund being hereinafter included in the term "carriers") to employ physicians and surgeons to attend upon and serve injured employees, practically eliminating any choice thereof on the part of the employee;

That about the said year 1913, the Industrial Accident Commission adopted, and it, together with employers and insurance carriers has ever since promulgated and used a Fee Schedule for physicians and surgeons performing medical and surgical services to their employees under said Act;

That the said Fee Schedule was not at the time of its adoption, and never since has been, and is not now based upon sound economic principles; and was, and at all times has been and now is inadequate and unfair to the physician and surgeon, and has never afforded proper, fair or reasonable compensation to the physician and surgeon, and by reason of such inadequacy and unfairness has never been adhered to, but, on the contrary, repeatedly departed from both by employers and carriers, and at the present time said Fee Schedule is grossly inadequate;

That said Fee Schedule so adopted by said Industrial Accident Commission and used by it and employers and insurance carriers has never been adopted nor agreed to by this Society or the members thereof;

That this Society has information to the effect that rebates have been negotiated between certain employers and carriers on the one hand and physi-

cians and surgeons on the other which inevitably results in improper and inadequate medical and surgical services to the employee and is hereby condemned;

That while the Council of this Society has heretofore by resolution announced its belief that fundamentally all compensation for medical and surgical services rests upon the earning power of the employee, no basic and thorough investigation of facts relating to the operation of said Act, or medical and surgical services thereunder, or compensation therefor has ever been made;

Now, therefore, be it

Resolved: That the Medical Society of the State of California, through the Council thereof, does hereby adopt the following Fee Schedule for medical and surgical services to be rendered and performed under said Act, pending further investigation of the entire matter;

#### **FEE SCHEDULE FOR PHYSICIANS AND SURGEONS**

Presented by the Committee of the Council of the Medical Society of the State of California for the treatment of Industrial Accident cases covered by the Workmen's Compensation Law. Note A. These fees represent a minimum! Fees higher than schedule will be allowed when warranted by unusual difficulties or requiring an unusual amount of time. Note B. Unusual cases and procedures not specified will entitle the surgeon to a fee the same as that for specified procedures of approximately equal magnitude. Note C. Bills must be itemized, showing date of each visit, dressing or operation and the charge for the same. Charges higher than minimum must be itemized and amply justified by clear explanation. Note D. The schedule here presented is designed for use in connection with medical services rendered an individual with an average earning capacity of \$1,250 per annum. To this class belongs the average individual which the Workmen's Compensation, Insurance and Safety Act is intended to cure and relieve. Note E. The restoration of function is considered more important than appearance. It is the duty of the surgeon to restore function. Note F. X-ray examination is exacted in all cases of bone injury and doubtful bone injury. Note G. A special physical examination and report on a special blank, furnished for that purpose will be made when requested by employer, insurance carrier or Industrial Accident Commission. The surgeon should state in his first report of accident whether or not in his judgment a special examination is advisable. It is suggested that a special examination may be required in selected cases as follows: 1. Persons over 60 years of age; 2. The infirm or those of poor physique; 3. Injuries to head or thorax or abdomen; 4. Serious injuries of any kind; 5. Injuries which may involve nerves. Immediate examination for nerve integrity in parts beyond site of fracture, dislocation or other injury is necessary in order to detect such complication at earliest possible time. N. B.—Approximately 50 per cent. of all injuries involve the fingers only. Such cases will probably not require general physical examination. The surgeon will make a recommendation for a special examination when necessary in regard to these and other uncomplicated injuries. For this special examination a fee of \$5 will be allowed. First visit, including report and first examination, in injury not provided for below \$2.50; or, including report and special examination as provided in Note G, \$5.00. Surgical dressings (materials) specify costs—Mileage beyond city limits, 75c day, \$1.00 night, one way per mile. Assisting at operation—major, \$12.50; minor, \$6; consultation, \$5; administering general anesthetic, \$5 to \$10; testimony before Commission, \$12.50. Fractures: Reduction and first dressings—Operations: Nasal

bones, \$12.50, metacarpal or metatarsal bone, \$7.50; phalanx, \$5; carpal or tarsal bone, \$7.50. (For operative procedures special fees.) Forearm—leg, 1 bone, \$12.50; 2 bones, \$30; subsequent visits hospital or home, \$1.75; office, \$1.25; femur or humerus, \$40; clavicle or scapula, \$20; patella, \$20; mandible or maxilla, \$20; pelvis, \$25; ribs, \$6. For compound or comminuted fractures or fractures involving joints, add fifty per cent. to this list to find minimum fee. For bone plating or bone splinting or inlay (when authorized) three times fee for simple fracture. Dislocations: Fees according to magnitude and time consumed. Subsequent visits, hospital or home, \$1.75; office, \$1.25. Sprains: Fees according to magnitude and time consumed. Subsequent visits, hospital or home, \$1.75; office, \$1.25. Amputations: Finger or toe, \$7.50; two fingers or toes, \$12; hand, wrist, forearm or arm, \$30; shoulder disarticulation, \$50; subsequent visits, hospital or home, \$1.75; office, \$1.25; foot, ankle or leg, \$30; knee or thigh, \$75; hip disarticulation, \$100. Special operations and procedures: Trephining or resection of skull, \$60; laminectomy, \$100; hernia, radical operation, \$40; hernia—by taxis, hernia—by reduction and applying truss, according to difficulty and to time consumed; paracentesis, thoracis, \$10; paracentesis, pericardii, \$25; tendoplasty (depending on magnitude of operation, number and depth of tendons, whether recent or old and on tissues lost); subsequent visits, hospital or home, \$1.75; office, \$1.25; burns, involving 1 hour attendance, \$25; cataract operation, \$50; detention, per hour, with patient, \$6; giant magnet use (in accordance with difficulty and time consumed); laparotomy (in accordance with difficulty and time consumed); semilunar cartilage removal, \$50; catheterization of urethra, \$5. Eye operations: Removal of foreign body from conjunctiva (one or more), \$3. Subsequent visits, hospital or home, \$1.75; office, \$1.25; removal of foreign body from cornea, \$5; enucleation of the eye, \$40. Minor operations: (Fees according to magnitude and time consumed.)

And be it further

Resolved, That all employers and insurance carriers who adopt and comply with the terms of said Fee Schedule and who do not directly or indirectly accept or receive rebates therefrom from physicians and surgeons, be authorized by the Standing Committee on Compensation Insurance hereinafter named to use the report blanks for physicians and surgeons in the performance of medical and surgical services under said Act heretofore prepared, compiled, and this day adopted by this Society.

That said Standing Committee on Compensation Insurance be, and is hereby authorized and empowered to present all facts relating to the entire matter to the Industrial Accident Commission, the State Compensation Fund and the Insurance Department to carry this resolution into effect including any change in the present premium rates for such insurance that may be necessitated thereby.

And that said Standing Committee is hereby further authorized and empowered to settle and adjust all disputed matters in reference hereto between employers and carriers adopting said Fee Schedule and the profession.

That said Standing Committee before authorizing the use of said Report Blanks by any employer or carrier shall require from such employer or carrier a written statement duly executed by the principal or a duly authorized officer thereof setting forth the desire of such employer or carrier to conform to said Fee Schedule and his or its disapproval of any character of rebate therefrom, and in the event of any breach of such representations said Standing Committee is authorized to revoke the right of such employer or carrier to use such Report Blanks and to give notice to the

profession through the California State Journal of Medicine or otherwise as the Committee shall determine.

That said Standing Committee on Compensation Insurance continue its investigation of the entire matter with particular reference to the advisability of the ultimate adoption of a flat Fee Schedule for such work."

A regular meeting of the Council was held at the office of the Society, Jan. 24, 1920. The resolutions relating to compensation insurance submitted to individual councillors and approved were formerly adopted by the Council. The following communication from the Industrial Accident Commission relative to the flat fee was received.

"After full consideration and discussion, this Commission came to the conclusion that it would not be in the interest of injured men to have adopted any system of payment for medical treatment in lump sum, and the Commission prefers to adhere to the principle that surgeons rendering service in industrial injuries should be paid the reasonable value of services actually and necessarily rendered in each particular case.

The Commission regrets that it cannot meet the views of your Committee in this particular, as it would undoubtedly be a convenience to be able to charge lump sums for services rendered, but, to our minds, the interests of the injured workman are paramount."

On April 16, 1920, the Committee met at the office of Dr. Graves. The draft report was discussed at length. It was decided to submit conclusions rather than recommendations.

At a regular meeting of the Council held at the office of the Society, April 17, 1920, the Committee reported the present status as follows: There had been a great deal of delay in action by the Commission and by the carriers. There had also been further delay in an official authorization of increased rates and no formal conference had been held.

The following telegrams were submitted as bringing the subject up to date:

"San Francisco, Cal., March 3, 1920.

National Council on Workmen's Compensation Insurance, 128 Williams St., New York.

California Physicians growing insistent on immediate increase of medical fees, at least 25% see our letter December fifth. Please advise definitely as possible when manual will be promulgated and what provisions will be made for this increased medical.

CALIFORNIA INSPECTION RATING BUREAU.

New York, N. Y., March 4, 1920.

W. A. Chowen, Mgr.

California Inspection Rating Bureau,

Insurance Exchange Bldg., San Francisco.

General Rating Committee Council meets next Tuesday to begin continuous session. Practically impossible to predict when Committee will complete its work. Can only say that California rates will receive earliest possible attention.

NATIONAL COUNCIL ON WORKMEN'S COMP. INS.

San Francisco, March 30, 1920.

National Council on Workmen's Compensation Insurance, 128 Williams St., New York.

Annual meeting California State Medical Association in May. Its Committee on medical fees must report at that time and has waited so long for insurance companies answer to request that fee schedule be increased 25% as agreed by Industrial Accident Commission that their patience is exhausted. It is necessary at this time that we give doctors an assurance. Please tell us whether rates in forthcoming Manual will provide for 25% increase over present medical fees.

CALIFORNIA INSPECTION RATING BUREAU.



New York, March 31, 1920.

W. A. Chowen, Mgr.  
California Inspection Rating Bureau, Insurance  
Exchange Bldg., San Francisco, Cal.

New Rates will provide necessary allowance for increased medical cost. Insurance Department should be prepared to approve appropriate rate increase for this additional cost at the proper time.  
H. E. RYAN."

Dr. Moseley of the Committee, said the State Insurance Commissioner had practically agreed to the increase in rates and that the insurance carriers were prepared to put the 25% increase in effect. It was stated the Industrial Accident Commission had also decided to adopt the 25% increase. As the Annual Meeting of the Society was close at hand the Committee did not desire the Council to take action that would bind the Society by formally accepting the 25% rate. The Committee stated it would present its completed report to the Council at Santa Barbara.

The fee schedule prepared by the Committee and adopted by the Commission and by the Insurance Carriers with the standard report blanks are herewith submitted as representing the work of the Committee.

The Committee, having outlined the preliminaries necessary to arrive at this result, prefers to submit conclusions rather than recommendations.

1. It is evident the prolonged delay in the formal adoption of the proposed increase and the fact that it was not in effect on April 17th, practically three weeks prior to the annual meeting, would not justify its adoption by the Council thereby binding the Society for one year. It is also recognized that if inadequate in May, 1919, in view of the steady uptrend of prices, wages and professional fees it might fairly be regarded as preposterous in 1920. It is therefore submitted for consideration, adoption or rejection.

2. If tentatively adopted, the Society can direct that steps be taken to raise the rates to figures agreed upon at this time.

3. If rejected, the same ground must be gone over in the same way, with economic loss to the profession pending a final adjustment.

4. It is absolutely certain that results can only be attained by the closest possible organization and the determination by a majority of the profession to force the issue to an equitable conclusion.

5. The alternative is a guerilla warfare productive of no definite results and doomed to failure in the face of organized opposition.

6. It must be borne in mind that even at present rates, this business is accepted and is considered attractive by many physicians. These men are neither incompetent nor inexperienced. An office organization and sufficient volume of business are the essential factors. These conditions are recognized by the Companies and are always mentioned when higher fees are urged.

7. Organizations for the exploitation of the profession are also in existence. This is admitted by the insurance companies who state the remedy lies with the Society at the same time expressing their willingness to co-operate.

8. The Committee is satisfied the insurance companies prefer to deal with the regularly organized profession and desire to employ the best available men.

JAMES H. PARKINSON,  
JOHN H. GRAVES,  
GAYLE H. MOSELEY,  
Committee.

The report was considered at great length on the floor of the House of Delegates and a general discussion ensued.

Upon the motion of Graves, seconded by Kenyon, the report was unanimously adopted as a whole by the House of Delegates.

## NEW BUSINESS

### Reapportionment of Delegates to the House of Delegates

The President then stated that owing to the increasing membership in the Society, a reapportionment of Delegates in accordance with Article V, Sec. 6, By-Laws, was in order, and that a Committee had been appointed by the Council to work out a plan of such reapportionment as would bring the number of Delegates within the limit of eighty (80); that the Committee had carefully examined the membership list of component societies furnished it by the Secretary to determine therefrom the number of Delegates to which each County Medical Society should be entitled.

The President then called upon the Chairman of said Committee on Reapportionment, Jas. H. Parkinson, who read the following:

### REPORT OF THE COMMITTEE ON REAPPORTIONMENT

The Committee finds that the number of Delegates prescribed by the Constitution is eighty (80); the number registered at this meeting is 125.

The membership of the Society on April 1, 1920 was 2879. The number of County Societies in the State is 40. The present representation is one delegate to every 25 members or major fraction thereof. On the basis of one to every 50 members, the number will be 78. It is understood that a Society will soon be organized in Imperial County which would make the number 79.

The Committee recommends that 1 delegate to every 50 members be used as the basis for reapportionment.

JAS. H. PARKINSON, Chairman;  
RENÉ BINE,  
GEO. H. KRESS,

Committee.

(Secretary's Note: Imperial County has an organized society which is a component society of this Society.)

Upon the motion of Parkinson, seconded by Bine, the report was unanimously adopted. Subsequently, the question was raised as to the action on this report at this time as under the ruling of the President "it was new business." After some discussion, the Chair ruled that it be referred to the Reference Committee.

## RESOLUTIONS

The President then announced that any resolutions presented to the House of Delegates for its consideration would be referred to the Reference Committee, and that this Committee after careful deliberation would report to the House of Delegates at the Second Session, to be held Wednesday evening, May 12, 1920.

Resolutions were then presented as follows:

#### RESOLUTION NO. 1

Presented by Victor G. Vecki.

Whereas, It has always been the policy of the medical profession to maintain the confidence of their patients as an inviolate secret; and

Whereas, The Volstead Act compels the physician to betray the confidence placed in him by his patient by publishing the nature of his illness; and

Whereas, The said Volstead Act dispenses with the judgment of the physician when treating his patients by limiting the amount of alcoholic stimulants he may prescribe; therefore be it

Resolved, That the Medical Society of the State of California expresses its disapproval of those portions of the said Volstead Act which interfere with the proper relation of the physician and his patient; and it is further

Resolved, That a copy of this resolution be sent to each of our representatives in the House and the Senate of the United States.

#### RESOLUTION NO. 2

At the request of Dr. Frank B. Carpenter, Dr. Euclid B. Frick was granted the floor and read the following:

#### IN MEMORIAM

On April 22, 1920, Dr. J. Henry Barbat died at his home in San Francisco.

He was a virile man of simple tastes, frank manner, sterling virtue, and genial and generous disposition, a progressive and well-informed surgeon with unusually good surgical judgment and manual dexterity as an operator. He was intensely interested in the progress and welfare of this Society and his County Medical Society, and also took an active part in the civic medical problems of his city; but above all his other qualities his friends hold in loving remembrance his kindly, generous, loyal and unwavering affection for them. It is seldom that we find a man whose character combines so much in the way of professional ability and personal good qualities.

He died at the zenith of his career, successful as a surgeon and beloved as a man.

His death is an irreparable loss to his family and personal friends, to his patients, to this Society and to the whole community in which he lived.

We at this session miss him grievously.

On motion regularly moved and seconded it was unanimously

Resolved, That the above expression of sympathy be received by the Society and that a copy be sent to the family of the late J. Henry Barbat.

#### RESOLUTION NO. 3

Presented by a Committee of—W. W. Roblee, Andrew Stewart Lobingier and Robt. A. Peers.

Whereas, There is not at the present time in the scheme of organization of the Scientific Program any place for the presentation of topics of general interest; and

Whereas, As at present constituted there is no

opportunity for the man in general practice to secure a place on the program; therefore be it

Resolved, That the Committee on Scientific Program be, and hereby is, instructed to provide, in addition to the program of the regular sections, a program of general interest, so that every member of the Society may have an equal opportunity to participate; be it further

Resolved, That the General Program shall consist of two half-day sessions, one of which shall occupy a part of the first morning of the convention; be it further

Resolved, That in order to provide sufficient time for the Tuesday morning session, all other exercises, except the President's address and reports of necessary committees, be omitted.

(Signed) W. W. ROBLEE,

(Signed) ANDREW S. LOBINGIER,

(Signed) ROBT. A. PEERS,

Committee.

#### RESOLUTION NO. 4

Presented by a Committee of—W. W. Roblee, Andrew Stewart Lobingier and Robt. A. Peers.

Resolved, That the Council be instructed to appoint a committee of three members and request the appointment of similar committees by the League for the Conservation of Public Health, the State Nurses' Association, and the State Board of Health, which shall hold joint meetings from time to time to consider matters connected with the nursing profession, especially proposed legislation.

(Signed) W. W. ROBLEE,

(Signed) ANDREW S. LOBINGIER,

(Signed) ROBT. A. PEERS,

Committee.

#### RESOLUTION NO. 5

Presented by G. G. Moseley.

Whereas, The subject of expert medical testimony in insanity and accident cases before the courts and commissions of the State of California has not been and is not satisfactory; therefore be it

Resolved, That the President of this Society appoint a committee of five to investigate and report to the Society ways and means for improving and standardizing if possible a plan for furnishing competent expert medical testimony in court and commission cases.

#### RESOLUTION NO. 6

Presented by Mary E. Botsford.

Whereas, The administration of inhalation anaesthesia, to wit: the practice of anaesthesiology, is the practice of medicine and demands a thorough medical education; and

Whereas, The practice of using technical assistants among the laity or the nursing profession for the giving of inhalation anaesthetics, tends to lower the standards of medical education and needlessly endanger human life; therefore be it

Resolved, By the House of Delegates of the Medical Society of the State of California, that the administration of inhalation anaesthetics—the practice of anaesthesiology—should be performed



and practiced only by licensed physicians and surgeons, and that the custom of employing technical assistants among the nursing profession or among the laity is hereby condemned; and further be it

Resolved, That no person other than a duly licensed physician and surgeon be employed or used by any member of this Society to administer an inhalation anæsthetic, except in an emergency or in communities or districts where no physician and surgeon is practicing anæsthesiology; and be it further

Resolved, That no hospital shall be deemed to have acceptable standards which employs a nurse or lay anæsthetist to administer inhalation anæsthetics or to practice anæsthesiology, except in cases where duly licensed physicians and surgeons are not available, and then only as an employee of such hospital.

#### RESOLUTION NO. 7

Presented by Jas. H. Parkinson, Chairman of Committee appointed by the Council.

#### REPORT OF COMMITTEE ON RE-APPORTIONMENT

The committee finds that the number of delegates prescribed by the Constitution is 80, the number registered at this meeting is 125.

The membership of the Society on April 1, 1920, was 2879. The number of County Societies in the State is 40. The present representation is one delegate to every 25 members or major fraction thereof, on the basis of one to every 50 members; the number of delegates will be 78. It is understood that a society will soon be organized in Imperial County which would make the number 79. The committee recommends that one delegate to 50 members be used as the basis for reapportionment.

JAS. H. PARKINSON, Chairman;  
RENÉ BINE,  
GEO. H. KRESS, Committee.

#### RESOLUTION NO. 8

Presented by G. G. Mosley.

Resolved, That the By-Laws, Article V, be amended by adding a new section thereto to be numbered Sec. 12a, reading as follows:

#### ARTICLE V.

Sec. 12a. The Council shall annually in advance fix the place of the annual meeting. The Council shall do all other acts and things for and on behalf of the Society, not otherwise provided for.

#### ADJOURNMENT

There being no further business, the meeting was adjourned to meet Wednesday evening, May 12, at 8:30 o'clock.

#### SECOND SESSION

Wednesday evening, May 12, 1920, at 8:30 o'clock

#### ROLL CALL

The roll being called, ninety-four (94) Delegates were found to be present, and the President.

H. A. L. Ryfkogel, in the chair, declared that a quorum of the House of Delegates was present and that the House was ready for business.

*Place of Meeting, 1921*—The President then made the announcement that the place of meeting for 1921 would be at Hotel Coronado, Coronado, California.

#### ELECTION OF OFFICERS

Nominations for President-Elect were declared in order.

*President-Elect*—John H. Graves of San Francisco was nominated for President-Elect by Frank B. Carpenter of San Francisco, said nomination being duly seconded by Wm. T. McArthur of Los Angeles. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for John H. Graves for President-Elect. The Secretary duly cast the ballot, and John H. Graves was duly declared elected President-Elect of the Society for the year 1920.

Nominations for First Vice-President were declared in order.

*First Vice-President*—William Duffield of Los Angeles was nominated for First Vice-President by Wm. T. McArthur of Los Angeles, said nomination being duly seconded by C. Van Zwahlenburg of Riverside. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for William Duffield for First Vice-President. The Secretary duly cast the ballot, and William Duffield was duly declared elected First Vice-President of the Society for the ensuing year.

Nominations for Second Vice-President were declared in order.

*Second Vice-President*—Joseph Catton of San Francisco was nominated for Second Vice-President by Frank B. Carpenter of San Francisco, said nomination being duly seconded by Geo. H. Kress of Los Angeles. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for Joseph Catton for Second Vice-President. The Secretary duly cast the ballot, and Joseph Catton was duly declared elected Second Vice-President of the Society for the ensuing year.

Nominations for Secretary were declared in order.

*Secretary*—Saxton Pope of San Francisco was nominated for Secretary by René Bine of San Francisco, said nomination being duly seconded by Jas. H. Parkinson of Sacramento. On motion, duly seconded, the President cast the ballot of the House for Saxton Pope for Secretary, and Saxton Pope was duly declared elected Secretary of the Society for the ensuing year.

Nominations for Councilors, terms expiring 1920, were declared in order.

#### COUNCILORS

*At-Large, Los Angeles*—Geo. H. Kress of Los Angeles was nominated for Councilor-at-Large, said nomination being duly seconded. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for Geo. H. Kress for Councilor-at-Large. The Secretary duly cast the ballot, and Geo. H. Kress was duly declared

elected Councilor-at-Large (to succeed himself) for the ensuing three years.

*At-Large, Los Angeles*—Wm. T. McArthur of Los Angeles was nominated for Councilor-at-Large, said nomination being duly seconded. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for Wm. T. McArthur for Councilor-at-Large. The Secretary duly cast the ballot, and Wm. T. McArthur was duly declared elected Councilor-at-Large for the ensuing three years.

*At-Large, Riverside*—C. Van Zwahlenburg of Riverside was nominated for Councilor-at-Large, said nomination being duly seconded. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for C. Van Zwahlenburg for Councilor-at-Large. The Secretary duly cast the ballot, and C. Van Zwahlenburg was duly declared elected Councilor-at-Large (to succeed himself) for the ensuing three years.

*At-Large, San Francisco*—René Bine of San Francisco was nominated for Councilor-at-Large, said nomination being duly seconded. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for René Bine for Councilor-at-Large. The Secretary duly cast the ballot, and René Bine was duly declared elected Councilor-at-Large (to succeed himself) for the ensuing three years.

*Fifth District*—Frank H. Paterson of San Jose was nominated for Councilor for the Fifth District, said nomination being duly seconded. Dr. P. T. Phillips was also nominated, and said nomination was duly seconded. Ballots were distributed, tellers appointed, the vote canvassed, and it was found that Dr. Frank H. Paterson had received a majority of the votes cast; whereupon, Frank H. Paterson was duly declared elected Councilor for the Fifth District for the ensuing three years.

*Seventh District*—Edw. N. Ewer of Oakland was nominated for Councilor for the Seventh District, said nomination being duly seconded. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for Edw. N. Ewer for Councilor for the Seventh District. The Secretary duly cast the ballot, and Edw. N. Ewer was duly declared elected Councilor for the Seventh District (to succeed himself) for the ensuing three years.

*Ninth District*—Andrew W. Hoisholt of Napa was nominated for Councilor for the Ninth District, said nomination being duly seconded. On motion, duly seconded, the Secretary was instructed to cast the ballot of the House for Andrew W. Hoisholt for Councilor for the Ninth District. The Secretary duly cast the ballot, and Andrew W. Hoisholt was duly declared elected Councilor for the Ninth District (to succeed himself) for the ensuing three years.

*Committee on Scientific Program*—F. F. Gundrum of Sacramento was nominated to serve on the Committee on Scientific Program, by G. G. Moseley of San Francisco, said nomination being duly seconded by Robt. A. Peers of Colfax. On

motion, duly seconded, the Secretary was instructed to cast the ballot of the House for F. F. Gundrum to serve on the Committee on Scientific Program. The Secretary duly cast the ballot, and F. F. Gundrum was duly declared elected to serve on the Committee on Scientific Program for the ensuing four years.

The Committee on Scientific Program is as follows:

Walter B. Brem, Los Angeles,	1921
Lemuel P. Adams, Oakland,	1922
F. M. Pottenger, Monrovia,	1923
F. F. Gundrum, Sacramento,	1924
Saxton Pope (as Secretary of the Society),	
Chairman.	

*Delegates to the American Medical Association*—Nominations for two Delegates to the American Medical Association were declared in order.

H. Bert Ellis of Los Angeles was nominated by C. Van Zwahlenburg of Riverside for Delegate to the A. M. A. for two years, said nomination being duly seconded by René Bine of San Francisco. On motion, duly seconded, the Secretary was instructed to cast the ballot for H. Bert Ellis for Delegate to the A. M. A. The Secretary duly cast the ballot, and H. Bert Ellis was duly declared elected Delegate to the A. M. A. for the ensuing two years.

Albert Soiland of Los Angeles was nominated by William Duffield of Los Angeles for Delegate to the A. M. A. for two years, said nomination being duly seconded. On motion, duly seconded, the Secretary was instructed to cast the ballot for Albert Soiland for Delegate to the A. M. A. The Secretary duly cast the ballot, and Albert Soiland was duly declared elected Delegate to the A. M. A. for the ensuing two years.

Delegates to the American Medical Association are as follows:

A. B. Spalding, San Francisco,	(1)	1921
H. Bert Ellis, Los Angeles,	(2)	1922
Albert Soiland, Los Angeles,	(2)	1922

Nominations for two Alternates to the American Medical Association were then declared in order.

C. Van Zwahlenburg of Riverside was nominated by Edw. N. Ewer of Oakland for Alternate to the American Medical Association for two years, said nomination being duly seconded by Wm. T. McArthur. On motion, duly seconded, the Secretary was instructed to cast the ballot for C. Van Zwahlenburg for Alternate to the American Medical Association. The Secretary duly cast the ballot, and C. Van Zwahlenburg was duly declared elected Alternate to the American Medical Association for the ensuing two years.

Edw. N. Ewer of Oakland was nominated by G. G. Moseley for Alternate to the American Medical Association for two years, said nomination being duly seconded by O. D. Hamlin. On motion, duly seconded, the Secretary was instructed to cast the ballot for Edw. N. Ewer for Alternate to the American Medical Association. The Secretary duly cast the ballot, and Edw. N. Ewer was duly declared elected Alternate to the Amer-



ican Medical Association for the ensuing two years.

Alternates to the American Medical Association are as follows:

T. C. Little, San Diego,	(1)	1921
C. Van Zwalenburg,	(2)	1922
Edw. N. Ewer, Oakland,	(2)	1922

### Presentation of the President

John C. Yates of San Diego, the incoming President, was then escorted to the chair.

Dr. Yates made a very interesting address as follows:

Mr. President and Members of the Medical Society of the State of California:

Last year you placed me on probation for one year as President-Elect, and in July the government placed me on prohibition, so I enjoy the distinction of being your first probation-prohibition President.

This is just one very small item in current methods of reconstruction following the terrible upheaval of the world war, and this is the first meeting, when you all have been able to return from your various duties during that time, but the reconstruction process commenced some time ago, and will continue until all things are adjusted in a new plane of some kind. There will be a great many experiments of all sorts and kinds in this readjustment, many of which will be found to be visionary and be dropped entirely, while others will remain as our guide. What part is the organized profession of medicine to take in this work which is going to affect us all? As you all know at the present time, medicine is assailed from all sides by various sorts of religious fanatics, and from this develops every kind of fad and ism, based more or less upon the teachings of the Bible and the healings of Christ. From another side comes the commercial quack in guise of some more or less high sounding name culled from the Greek, and our public legislators, not being educated to any extent along our lines of thinking, are led astray in their honest endeavor to do what they think right. As citizens of the State, and of our own local community, is it not our duty to give the public more of our ideas as to how and why certain things should be done, looking toward their benefit? Have we not been derelict in our duty in many respects? We have always tried in every way to work for the benefit of the public in general in saving lives and conserving the health of our community, and when in serious trouble of any kind, it is the physician of whom advice is asked. About the only time a physician is not asked his advice is when something that concerns him personally is to be brought about, whether of a private enterprise or public nature. A very serious decision and responsibility is resting upon us of the Medical Profession of today in the changing conditions as to what lines the medical profession of the future is to assume.

The Medical Profession of this State, united within this Society, for many years strove for scientific advancement and the increasing efficiency of each member of our Society. We determined in 1918 to attempt the solution of the public health questions, that yet remain to be solved, to put the profession in proper harmony and accord with the lay public, and to see that the principles of preventive medicine were put into practical effect, so far as that were possible through the organized efforts of the profession. To accomplish these objects, which I realize are all too briefly summed up here, The League for the Conservation of the Public Health was formed.

How well it has served the public and profession you all know. That its unceasing efforts to

successfully combat the foes of scientific medicine and to arouse the profession to a proper sense of its civil duties, has greatly benefited the Society's campaign for members, and in view of the great work of that organization, and the vital work of this organization, I feel that the successful issue of the membership campaign, inaugurated under my predecessor, Dr. Ryfkogel, is one of the most important projects that this body has undertaken. Having for its object the bringing within the fold all ethical physicians and surgeons, licensed in this State, Dr. Ryfkogel, Dr. Pope and members of Council, made a wise selection in the person of Mrs. R. V. S. Berry as the special agent of the Society, and you have heard in the report already given of the very splendid work which this agent has done in this connection, which has added to our number some 200 members of the profession. The lesser cities and counties remain to be visited by the Society's agent, and I hope before my term ends, we shall be able to report to you that she has canvassed the entire state and met with the same success that has been hers in the sections already covered.

The second Society undertaking, which my predecessor stated to be of primary importance to him as President, will also be of importance to me, the campaign in relation to the Indemnity Defense Fund. We all know that we are practically unanimous in neglecting our own business and our own affairs. We are so engrossed in the demands of our practice that we feel we have no time to take any heed of the future, and while our medical defense, without financial protection, has been most ably and satisfactorily carried on by our Legal Department for some ten years, nevertheless instances do arise where judgments are recovered against doctors, where the demand is without any merit whatever; or without personal oversight or neglect on the part of the doctor. Realizing these conditions this body established the Indemnity Defense Fund. The number of members now in the Fund has reached a gratifying figure. I intend to press this campaign so that every member of the Society is at least cognizant of the existence of the Fund, its purposes, and what it means to him.

The third proposition placed before you last year, the year before, and now again this year, is still unsolved; I refer to practice under Workmen's Compensation Act. The year, however, has not been without fruitful results. The Council, and particularly its Committee, consisting of Dr. Parkinson of Sacramento, Chairman, and Drs. Moseley and Graves, has done remarkable work. These gentlemen have been untiring in their efforts in behalf of us all. They have met many, many times, and held numberless conferences, both with members of the profession, members of the Industrial Accident Commission, employers, and others. When the Workmen's Compensation Act went into effect in 1913, we did not realize the vital necessity of acting as a unit. Instead of meeting by ourselves and studying the problem at all angles, so as to reach a result that would have given satisfaction to the injured employee, to the public, and to ourselves, we disintegrated, allowing others to seize the helm, and have done as we have been told to do ever since. I hope that we have now learned the necessity of organized action, of agreement among ourselves in the first instance, and upon the selection of duly empowered representatives to follow our recommendations throughout. Whatever we may individually or personally think of the Workmen's Compensation Act, it may be taken as final, I believe, that it is now regarded as an economic necessity, and desirable as such, both by employer and employee. It remains for us to see that a system is administered which will protect the rights and interests of the employee and our profession.

We hope to have these things all complete this year. I have mentioned the Council briefly two or three times, but right here I want to congratulate the Society and thank you for the efficient Council you have elected, for it is to them you owe the high standard and good name of this Society. Most of us come to the meeting once a year, hear some excellent papers, have a good time meeting our friends, and then go home leaving the burden of the Society on the Council for another year, with a perfect feeling of trust that everything possible will be done by them for our benefit.

In closing, I wish to thank you for the high honor you have conferred upon me by electing me your president, and I hope to have your full co-operation in making this year a successful one in the annals of our Society.

#### Presentation of the President-Elect

John H. Graves of San Francisco, President-Elect, was next presented. Dr. Graves expressed his appreciation in a few well-chosen words.

#### REPORT OF THE GENERAL ATTORNEY

General Counsel Hartley F. Peart made a brief report of the status of the work of the Legal Department.

On motion, duly made and seconded, said report was unanimously adopted by the House.

Upon motion, unanimously seconded, a vote of thanks was extended to Messrs. Peart and Morrow for the efficient work which they have done.

#### REPORT OF THE REFERENCE COMMITTEE

The President then called upon Jas. H. Parkinson, Chairman of the Reference Committee, for a report of that committee. Said report was read by the Chairman as follows:

Your Committee begs leave to report the following for the consideration of the House of Delegates:

1. *President's Address*—Referring to the President's address—Education of Patients:

The Committee recommends to the profession that every opportunity be availed of to inform their patients on all points where intelligent public opinion can advance scientific medicine or influence legislation.

*Attendance at Medical Societies*—The Committee recommends that the Council be instructed to ascertain the average attendance at Medical Society meetings in this State and the frequency of such meetings.

The Committee further recommends that methods of increasing interest and promoting attendance at meetings of Medical Societies and of Societies in general in this and other States be studied and that the results with proper recommendations be put in effect from time to time during the year.

*Funds of Sections*—The Committee recommends that the Council considers the provision for expenditures in the various sections that will increase attendance at the sessions and for the Program Committee in carrying on its work.

On motion, duly made and seconded, the report was unanimously accepted by the House of Delegates and referred to the Council.

2. *Report of the Council*—Referring to the Chairman's address:

*Campaign for New Members and Medical Survey of State*—The Committee recommends that this campaign be continued and that the necessity for an accurate survey and index of medical matters throughout the State be considered in this connection.

On motion, duly made and seconded, the report was unanimously accepted by the House of Delegates and referred to the Council.

3. *Report of the Editor*—The Committee recommends that the Society records its appreciation of the marked improvement in the Journal and the excellent character of its reading matter. While recognizing that the number of printed pages is limited by the Journal income, it suggests that this income be increased, by legitimate advertisements, as far as possible, to provide for the increasing demands upon its space.

On motion, duly made and seconded, the report was unanimously accepted by the House of Delegates.

4. *Report of the Secretary*—The Committee recommends that the best thanks of the Society be accorded the Secretary for his very valuable services at all times, but especially on the very smooth running of the many activities at this meeting, due in great part to the co-ordinating of all functions by the Assistant Secretary, who has acted as a most efficient liaison officer.

On motion, duly made and seconded, the report was unanimously accepted by the House of Delegates.

5. *In Memoriam*—Dr. J. Henry Barbat:

The Committee recommends that the resolution already adopted be made a part of this report for formal endorsement.

On motion, duly made and seconded, the recommendation of the Committee was unanimously accepted by the House of Delegates.

6. *Resolutions*—

#### RESOLUTION NO. 1

*Amendment of the Vostead Act*—The preambles and resolutions refer to Section 7, limiting the amount of spirituous liquor of any kind that can be prescribed for his patient by a physician within given periods; and the further provision in Section 7 for the keeping of a record in a special book in which the ailment of the patient must be stated, which fact is also prescribed in Section 8. These books are ultimately filed with the Government as public records.

The Committee recommends the adoption of the resolution and that the matter be referred to the Council for action.

On motion, duly made and seconded, the resolution was unanimously adopted by the House of Delegates.

#### RESOLUTION NO. 2

Resolution providing for session, other than section meetings, at which topics of general interest can be presented.

The Committee recommends the adoption of the



resolution and that the matter be referred to the Council for action.

On motion, duly made and seconded, the resolution was unanimously adopted by the House of Delegates and referred to the Council for action.

#### RESOLUTION NO. 3

Resolution requesting the appointment of Committee by State Nurses' Association, State Board of Health, League for the Conservation of Public Health and this Society, to consider matters connected with the nursing profession, especially legislation.

The Committee recommends that it be not adopted.

On motion, duly made and seconded, the resolution was unanimously rejected by the House of Delegates.

#### RESOLUTION NO. 4

Resolution providing for the appointment of a committee to investigate the present system of expert testimony in insanity, accident and other cases; to devise ways and means for its improvement and standardization.

The Committee recommends that the resolution be referred to the Council for action, that the present status of the question can be determined, and former action of the Society in this connection be considered.

On motion, duly made and seconded, the resolution was adopted by the House of Delegates, and the President authorized to appoint a committee of five (5) to report back to the Council.

#### RESOLUTION NO. 5

*Anesthesia*—A resolution regulating the practice of anaesthesia:

The Committee recommends that the preambles and resolution be not adopted in their present form, and that the Society goes on record on the following propositions:

1. That the administration of an anesthetic is always the function of a legally qualified medical practitioner;
2. That this administration is best performed by physicians specially trained or who have made a specialty of this subject;
3. That, wherever available, hospitals and public institutions, where anesthetics are administered, should employ only physicians as anesthetists;
4. That the Society condemns, under all circumstances, the training and qualification of lay persons as anesthetists;
5. That "no hospital shall be deemed to have acceptable standards" which charges a fee for an anesthetic unless such anesthetic has been administered by a legally qualified physician.

On motion, duly made and seconded, said recommendations (reported by the Reference Committee) were unanimously adopted by the House of Delegates.

*Reapportionment*—The Minutes of the House of Delegates show the report of the Committee on Reapportionment, which merely presented the action of the Council in accordance with Article

V, Section 6, of the By-Laws, and adopted by the House of Delegates. This naturally precludes its consideration by any committee.

*Report of the Committee on Industrial Accident Work*—This report, while properly coming under the head of "New Business," was not referred to the Reference Committee, but was adopted by the House of Delegates. It, therefore, cannot be included in this report.

Respectfully submitted.

JAS. H. PARKINSON, Chairman,  
FITCH C. E. MATTISON,  
MORTON R. GIBBONS,  
HARTLEY F. PEART, General Counsel,  
Reference Committee.

Upon motion, duly seconded, it was unanimously Resolved, That the report be taken up, read and approved, section by section.

Said report was then read section by section, and the recommendations of the Committee as to each section thereof was, on motion, duly made and seconded, duly adopted.

On motion, duly made and seconded, the report of the Reference Committee was unanimously adopted as a whole by the House of Delegates.

#### ADJOURNMENT

There being no further business before the House, the minutes of the first and second session were read and duly adopted. Upon motion it was regularly moved and seconded that the House of Delegates adjourn to meet at Hotel Coronado, Coronado, California, May 10, 11, 12, 1921.

#### THOSE REGISTERED AT THE FORTY-NINTH ANNUAL MEETING OF THE MEDICAL SOCIETY, STATE OF CALIFORNIA, MAY, 1920.

A  
Adams, Bon A.; Adams, L. P.; Alder, Elliot; Alvarez, W. C.; Allen, Chas. L.; Amster, L.; Anderson, C. W.; Anthony, E. H.; Anthony, R. S.; Anton, L. L.; Armstrong, Taylor; Arnold, M. H.; Auerback, Louise; Austin, M. O.; Avery, R. W.

B  
Barnhart, Wm.; Barnet, Fred J.; Bakewell, Benj.; Bailhache, A. L.; Barry, W. T.; Bagby, H. C.; Barrett, G. M.; Baxter, W. H.; Bartlett, E. I.; Bancroft, I. R.; Barlow, W. J.; Barrow, J. V.; Beattie, W. A.; Beckett, W. W.; Bell, C. A.; Berle, Chas. K.; Beckett, W. A.; Biné, Rene; Bishop, F. C.; Bishop, F. W.; Blatherwick, A. A.; Blair, J. C.; Boller, Phil; Bonthius, Andrew; Botsford, Mary E.; Boyce, W. A.; Bowman, M. B.; Brainerd, H. G.; Brem, Walter V.; Brennan, Thos. F.; Breed, L. M.; Brennaoum, W. J.; Breyer, J. H.; Brinkerhoff, E. E.; Brounfield, W. H.; Broughton, G. A.; Browning, C. C.; Brown, Adelaide; Brown, Chas. W.; Brown, J. M.; Brown, Rexwald; Brown, R. W.; Bryan, Lloyd; Burton, F. A.; Byrnes, R. L.; Buchner, G. O. H.; Bulpitt, Fred'k; Bull, E. C.; Bunnell, Sterling; Burch, E. Lee; Burger, Thos. O.; Burkard, A. F.; Burke, W. P.; Burnham, M. P.; Burnside, Chas.; Burks, F. L. R.; Butler, Edmund.

C  
Cameron, H. McD.; Camp, F. K.; Campbell, E. O.; Campbell, James; Campbell, R. R.; Campbell, W. W.; Carrington, P. M.; Carter, C. E.; Catton, Joseph; Carpenter, F. B.; Chaffee, R. S.; Chappel, H. W.; Chappin, R. C.; Chance, Arthur; Charlton, A. T.; Chamberlin, H. H.; Chambery, F. J.; Champion, J. A.; Chessman, Frank N.; Clarke, F. M.; Clark, Jonas; Clark, W. A.; Close, Katherine M.; Coblenz, L. B.; Coffey, W. B.; Coffin, H. M.; Cole, George L.; Collins, Asa W.; Cooke, A. B.; Cooke, H. T.; Cosgrave, Millcent; Couey, E. J.; Coy, L. M.; Cox, H. M.; Cox, T. J.; Craig, W. H.; Crane, W. R.; Crawford, John; Crawford, J. C.; Crawford, W. W.; Cross, W. W.; Crispin, Egerton; Cromwell, T. A.; Crossan, John W.; Cunningham, B. F.; Cummings, J. C.; Cummings, Roland; Cunnane, T. E.; Curtiss, Chas. L.

D  
Dakin, W. B.; Dameron, J. D.; Daniel, W. H.; Davis, G. W.; Day, Robt V.; Deane, L. C.; Decker, C. W.; De Puy, C. A.; De Puy, E. S.; Detling, Frank; Dignan, H.; Dillon, E. T.; Dillon, Jas. R.; Dillingham, F. S.; Dolley, F. S.; Dozier, Ernest; Dowling, S. W.

Dukes, C. A.; Duffield, Wm.; Duncan, Rex; du Bray, E. S.; Duncan, W. C.; Dunlop, John; Dye, W. G.

## E

Ebright, George E.; Edward, J. G.; Edwards, T. C.; Ellis, H. Bert; Ellis, Lulu T.; Eloesser, Leo.; Emmons, C. L.; Emerson, M. L.; Emge, L. A.; Ewer, E. N.

## F

Falconer, E. H.; Fallas, R. E.; Fairchild, F. D.; Fairchild, Fred R.; Feeley, Matilda; Ferrier, Paul A.; Fife, Joseph L.; Fish, E. S.; Fishbaugh, D. E.; Fisher, A. L.; Fisher, J. F.; Fleming, E. W.; Fly, E. M.; Flynn, Anna M.; Flint, Wm. H.; Folkins, F. H.; Foster, R. de L.; Franklin, J. H.; Franklin, Jas. W.; Franklin, W. S.; Frees, Ben; Frick, E. B.; Fulton, Dudley.

## G

Galtner, A. E.; Galbraith, G. H.; Gates, Amelia L.; Gibbons, H. W.; Gibbons, M. R.; Gilman, P. K.; Gilbert, W. H.; Girard, Frank R.; Glenn, Robt A.; Goetz, Alice L.; Gottlieb, Adolph; Graham, H. B.; Granger, A. S.; Graves, John H.; Grosse, A. B.; Grubbs, Robt B.; Guernsey, P. F.; Guilfoil, J. A.; Gunn, Herbert; Gundry, F. J.; Gundrum, F. F.

## H

Hadden, David; Hall, W. E.; Hale, N. G.; Hamlin, F. A.; Hamman, A. F.; Hamlin, O. D.; Hanford, Frank W.; Haque, W. Grant; Harding, H. W.; Harding, M. C.; Hart, M. E.; Harter, I. F.; Harvey R. W.; Henderson, A. E.; Henderson, H. E.; Hennemuth, J. L.; Heppner, Maurice; Herrmann, A. J.; Hill, E. J.; Hill, J. L.; Hill, Robt. B.; Hill, W. B.; Hill, W. H.; Hinman, Frank; Hoag, C. L.; Holleran, Walter M.; Homer, R. W.; Hoisholt, A. W.; Horgan, E. J.; Hosmer, C. M.; Howard, H. W.; Hood, W. H.; Hromadka, A. B.; Huggins, W. L.; Hulen, Vard H.; Hunkin, S. J.; Hunter, George G.; Hurwitz, S. H.; Hutchinson R.; Hyman, Sol.

## I

Inman, Thos. G.

## K

Kahn, M.; Kavinoky, N.; Kelly, E. E.; Kelly, Frank; Kellogg, W. H.; Kendall, E. C.; Kern, W. B.; Kerr, W. J.; Kenyon, C. G.; Kiger, W. H.; Kilgore, E. S.; King, John C.; King, Joseph M.; Kinney, Lyell C.; Kirk, B. E.; Kirschner, H. E.; Knapp, E. V.; Kneeshaw, R. S.; Koons, H. H.; Kress, G. H.

## J

Jacobs, Edw. H.; Jacobs, L. C.; Jacobs, Wm. R.; Janney, N. W.; Jean, George W.; Jesberg, Simon; Jones, N. W.; Jones, W. Harriman; Johnson, Carl; Johnson, C. O.; Johnson, Edward E.; Johnston, H. A.; Jordan, P. A.

## L

Lamoree, Edith V. A.; Lander, Chas. J.; Langstroth, Lovell; Langnecker, H. L.; Layman, M. H.; Leavitt, E. L.; Lefler, A. B.; Lehr, Stella R.; Lee, Dorothea; Lee, Helen; Leix, Fred'k.; Legge, Robt. T.; Lennon, M. B.; Lewis, E. R.; Lewis, W. J.; Lewis, Wm.; Little, Thos. C.; Løbingier, A. Stewart; Lockwood, Chas. D.; Logan, R. L.; Lohse, J. L.; Lowman, C. L.; Lippman, Caro W.; Livingston, W. R.; Loomis, F. M.; Lueas, W. T.; Luton, G. R.; Lynch, Frank W.

## M

Malley, G. M.; Malsbary, George E.; May, H. C.; Martin, H. R.; Marxmiller, H. G.; Maxwell, Alice F.; Mathé, C. P.; Mattison, F. C. E.; Maupin, J. L.; Means, P. C.; Mehrtens, H. G.; Mellinger, H. V.; Mellinger, W. J.; Merrill, B. E.; Merrill, H. P.; Melvin, J. T.; McArthur, P. R.; McArthur, W. T.; McAulay, John; McChesney, George J.; McCleaves, T. C.; McCoskey, Grace; McCollum, B. B.; McCoy, George W.; McGettigan, C. D.; McIntosh, A. M.; McKellar, J. H.; McKee, W. C.; McKenney, A. C.; McNeile, Lyle G.; McNeile, Olga; McVey, C. L.; MaeGowan, G.; Michelson, Lewis; Miller, Austin; Miller, B. F.; Miller, C. H.; Miller, F. W.; Mills, Lloyd; Miller, Robt. W.; Miller, S. J.; Molitor, N.; Morrison, S. K.; Morton, A. S.; Morton, A. W.; Morton, Lewis B.; Moseley, G. G.; Mott, D. W.; Moulton, D. H.; Moore, E. C.; Moore, Le Roy S.; Morris, C. A.; Morris, Roy H.; Morrison, M. McL.; Morrison, Wayland; Moseley, G. G.; Mudd, J. Le R.; Myers, G. G.; Myers, M. C.; Myers, Thos. C.

## N

Naffziger, H. C.; Nagelman, C. B.; Nelson, C. F.; Nevius, John W.; Newell, R. R.; Newman, Lester; Newman, H. P.; Newcomb, A. S.; Newcomb, C. W.; Newkirk, H. D.; Neel, J. C.; Nielsen, J. C. E.; Nittler, A. N.; Nusbaumer, P. S.

## O

O'Connor, Roderic; Oldham, John Y.; Olds, W. H.; Oliver, H. R.; Orella, F. L.; Osborne, H. B.; O'Neal, Robt. McW.; O'Malley, G. M.; O'Reilly, T. W.

## P

Palmer, C. B.; Parker, C. N.; Parker, Garth; Parkinson, Jas. H.; Paterson, Frank H.; Peers, Robt. A.; Percy, J. F.; Peterson, Anders; Pickard, R. J.; Pickard, R. J.; Pickett, J. C.; Pierce, H. F.; Pietrafesa, R.; Piness, George; Player, L. P.; Plymire, D. B.; Pischel, Kaspar; Plus, Chas.; Pollock, Robert; Pomeroy, J. L.; Pope, Saxton; Pottenger, F. M.; Powell, B. J.; Powers, L. M.; Preston, W. A.; Prince, L. D.; Pryor, F. O.; Prondfoot, C. P.; Putnam, V. E.

## Q

Quinn, T. D'Arcy.

## R

Rand, C. W.; Ramsay, J. A.; Reinle, G. G.; Reynolds, Cecil E.; Reynolds, L. G.; Reed, Alfred C.

Rees, C. E.; Rigdon, R. L.; Rigglin, L. L.; Rinchart, H. D.; Risley, E. H.; Rixford, Emmet; Roblee, W. W.; Rogers, F. L.; Rogers, Thos. L.; Roberts, J. M.; Roberts, W. H.; Robertson, H. M.; Robinson, Samuel; Rogers, Arthur M.; Rosenberger, H. G.; Rosenkranz, H. A.; Rossen, R. W.; Roth, Leon; Rothrock, F. B.; Rowe, Albert H.; Runckel, G. H.; Ryan, L. R.; Ryfkoegel, H. A. L.

## S

Saunders, C. E.; Schaller, Walter F.; Schaupp, Karl L.; Scholtz, Moses; Schulz, R. L.; Schurman, H. L.; Schneider, E. H.; Scholl, A. J.; Scholtz, Moses; Scott (Jr.), Alfred J.; Seabolt, Gertrude; Seawall, J. W.; Sellow, P. K.; Seymour, Eleanor; Sewall, E. C.; Shaw, J. H.; Sherman, H. M.; Sherk, H. H.; Shoemaker, Harlan; Sherman, Joseph R.; Shortlidge, E. D.; Shumaker, E. K.; Siefert, A. C.; Simonds, P. E.; Sink, W. D.; Skilton, A. W.; Skook, F. M.; Smith, Dudley; Smith, Harold H.; Sleeper, Karl R.; Smith, Bertrand; Smith, C. L.; Smith, E. D.; Smith, Rea; Smith R. T.; Snure, Henry; Soiland, Albert; Spalding, A. B.; Spiro, Harry; Stabel, Ferdinand; Stafford, O. R.; Stanley, L. L.; Staniford, K. J.; Steinberg, James; Stephenson, H. A.; Stevens, Chas. S.; Stevens, George M.; Stevens, Wm. E.; Stillman, Stanley; Stinchfield, H. C.; Stoddard, Chas. S.; Stoddard, F. A.; Stover, W. M.; Stoughton, A. V.; Strietmann, F. H.; Strong, D. C.; Sugarman, H.; Sullivan, J. F.; Sundin, P. O.; Sweet, C. D.; Sweet, Earl; Sweet, Robt. B.

## T

Taylor, Mary C.; Thomas, Benj.; Thomas, C. P.; Thomas, H. G.; Thomason, George; Thompson, H. A.; Thorner, M.; Thornton, A. J.; Thurber, Packard; Timme, A. R.; Toland, C. G.; Tomlinson, R. F.; Tranter, Chas. L.; Travers, Richard H.; Tupper, R. B.; Turley, Frances C.

## V

Vallee, J. E.; Van Zwalenburg, Chas.; Veeki, V. G.; Veeki, V. G.; Von Adelung, Edw.

## W

Wagner, F. J.; Walker, A. W.; Walker, G. W.; Walrath, G. B.; Waterman, C. O.; Warner, Chas. A.; Ware, James G.; Watkins, James T.; Weber, W. L.; Wehrly, John; Weimar, W. B.; Wells, George S.; Wessel, G. L.; Wetmore, Clyde T.; Williams, N. H.; Wiese, W. F.; Wiley, E. H.; Wilson, Carl G.; Wilson, H. W.; Whitner, C. F.; Whitney, J. L.; White, C. M.; Wilson, John; Wilson, J. M.; Williams, Ralph; Wier, T. F.; Witherbee, O. O.; Wing, P. B.; Worthington, Geo. B.; Wood, C. B.; Wood, E. H.; Wood, N. N.; Wood, W. A.; Woolf, M. S.; Wright, H. W.; Wymore, W. W.

## Y

Yates, John C.; Yerington, H. H.; Young, J. H.

## Z

Zeile, A. H.; Zerfing, C. E.; Sumwalt, F. H.

Following is a list of California State Journal of Medicine advertisers who had exhibits at the Forty-ninth annual meeting of the Medical Society, State of California—Hotel Ambassador, Santa Barbara, California, May 1920.

Gagan-Richardson Co., Los Angeles. In charge R. A. Richardson and G. S. Savage.

Keniston & Root Surgical Co., Los Angeles. In charge S. W. Root & Son.

Percy J. Meyers Co., San Francisco. In charge P. J. Meyers.

Radium Chemical Co., Pittsburg, Pa. In charge, W. A. Preston, Pacific Coast representative.

R. L. Scherer Co., Los Angeles. In charge, R. L. Scherer.

G. H. Sherman, Bacterin Laboratory, Detroit, Michigan. In charge, T. J. Champney.

Travers Surgical Co., San Francisco. In charge R. H. Travers.

Walters Surgical Co., San Francisco. In charge B. E. Kirk.

Bausch & Lomb Optical Co., San Francisco, had charge of the wiring for the scientific sections which was installed by their representative Mr. Johnston and handled in a most efficient manner.

## Book Review

**Systematic Development of X-Ray Plates and Films.** By Lehman Wendell. 78 pages. Illustrated. St. Louis: C. V. Mosby Company. 1919. Price, \$2.00.

A manual on dark-room technique which should be of valuable assistance to not only the beginner in X-Ray work, but should be in the reference library of every X-Ray laboratory.



The entire ground of plate and film development has been covered in a careful, painstaking manner. Useful formulae, arrangement of dark rooms, types of tanks, methods of making lantern slides, printing, care of tanks, control of solution temperatures, are all given proper significance.

The author is to be complimented in producing a book of which there is indeed a great need.

L. B.

**Sanitation for Public Health Nurses.** By Hibbert Winslow Hill. New York: Macmillan Company. Price \$1.35.

The first half of this book is devoted to a description of the infectious diseases—their causes, symptoms and treatment—and to a most interesting description of the theories, ancient and modern, of the causes of epidemics. The last half of the book deals with the means of preventing epidemics, hygienic measures necessary to preserve health, and the value and nature of statistics in Public Health work. The last chapter contains samples of records for Child Welfare work. The book is interesting and up-to-date and will be useful not only to those preparing for Public Health work but as a text-book for the study of the infectious diseases.

**Textbook of Chemistry for Nurses.** By Fredus N. Peters. 302 pp. Illustrated. St. Louis: C. V. Mosby. 1919. \$1.75.

This is an exceedingly interesting text-book of chemistry for elementary classes, but it is a pity the author specially signified its use for nurses, as about the only items that it contains of special interest to nurses are a few references to the derivation of drugs from the mineral elements, the means of softening water and a table of the antidotes for certain poisons. The greater part of the book is devoted to matter that, while exceedingly interesting, has no particular bearing on the nurses' other studies and their work. Thus the book is really more appropriate for High Schools than for Schools of Nursing, where, as a rule, such a short time can be allotted to chemistry that it is necessary to confine the study to the facts that are of particular importance to the nurses' special needs.

**Organization of Public Health Nursing.** By Annie M. Brainard. 144 pp. New York: Macmillan Company. 1919. Price \$1.35.

This little book outlines in a concise and interesting manner the reasons for the necessity of organization in the various branches of Public Health work and it gives most valuable suggestions for the procedures of organizing the work of the various committees, office staff and nursing force required to carry on such work. It shows the value of statistics and records and contains sample charts, record cards, inventory lists and similar data. The book is a valuable contribution to the literature on Public Health work and will be most helpful to all who, in any capacity, are engaged in organizing or carrying on any branch of Public Health nursing.

**The Diseases of Infants and Children.** By J. P. Crozer Griffith. 2 vols. 436 illustrations, including 20 plates in colors. W. B. Saunders Company. 1919.

This new Pediatrics is the latest addition to a list which now comprises about forty titles, identical or nearly so. From the others it stands out because of its wealth of compilations, tables, charts, photographs and references to the original literature. The descriptions of disease are, with a few exceptions, adequate and are illuminated by the excellent pictures. The practitioner will find the work of great value as a reference handbook. The tables showing the composition of milks and other foods, common and proprietary, with their caloric values

deserve special mention for completeness. The technique of various therapeutic measures is clearly given and also well illustrated. Unfortunately the California practitioner will not find here what he has missed in other Eastern text books—a system of infant feeding adapted to the California baby whose sturdy digestion and voracious appetite cry for stronger fare than appears to satisfy his Eastern brother.

H. K. F.

## Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published, but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

## PROFESSIONAL ETHICS

San Diego, May 29, 1920.

To the Editor:

Isn't it time we had done with the archaic twaddle camouflaged under the resonant title of Professional Ethics? Why defend poor practice simply because it is perpetrated by an M. D.? Why condemn fee-splitting and then have leaders, or at least noted, or at the very least, notorious doctors cannily continue the practice? Why have a lot of obsolete and forgotten customs perpetuated in this so-called code which no one follows and no one apparently admires? Why not clean house by each county society starting a campaign of honesty among its members and bring to time the ne'er-do-wells who invite reproach on the entire profession? I ask to know. Who will answer?

QUESTION BOX.

## Correspondence

### CARE AND USE OF NEW ARSENICALS

Washington, June 5, 1920.

On account of the large number of arsenic preparations which are being exploited for the treatment of syphilis, the United States Public Health Service has considered it desirable to issue a circular letter, copy of which is inclosed, discouraging the indiscriminate use of untried preparations.

Attention is especially invited to the fact that provision is made for the experimental use of any preparation under conditions which will make the results of such experiment available to others than the physician immediately concerned. Very truly yours,

H. L. CUMMING,  
Surgeon General

May 12, 1920.

Bureau Circular Letter No. 219.

Medical Officers, U. S. Public Health Service and others concerned:

Your attention is invited to the extensive exploitation through advertisements in professional journals and otherwise of various arsenic preparations which are not related to the arsphenamine group. The preparations referred to are sold with claims in regard to their value in the treatment of syphilis, which are unwarranted.

In the opinion of this office it is in the interest of all concerned that the subcutaneous, intramuscular or intravenous use of arsenic in the treatment of syphilis be confined to preparations of the arsphenamine group as these agents are of established value and are produced under the regulations of the Public Health Service. The following firms are now licensed for the manufacture of arsphenamine and neo-arsphenamine:

Dermatological Research Laboratories, 1720 Lombard Street, Philadelphia Pa.

H. A. Metz Laboratories, 122 Hudson Street, New York, N. Y.

Diarsenol Co., Inc., Buffalo, N. Y.

Takamine Laboratories, Clifton, N. J.

The Lowy Laboratory, of Newark, N. J., has been

granted a license to prepare a stable solution of arsphenamine.

It is not the desire of the Bureau to limit clinicians in the choice of agents of recognized worth but in the case of arsenic preparations, not members of the arsphenamine group, the available evidence indicates that their routine use is inadvisable in the treatment of syphilis. If it is desired to use any of these preparations in a purely experimental way previous authority from the Bureau should be secured. Applications for this authority should be accompanied by a statement as to the composition of the drug including the structural formula and the reason for its use. All information available on the value of the preparation should be forwarded.

H. S. CUMMING,  
Surgeon General.

#### ANOTHER GEM OF PUREST RAY

Sacramento, Calif.,  
May 13, 1920

Board of Medical Examiners,  
906 Forum Bldg.,  
S. E. Corner 9th & K. Sts.,  
Sacramento.

To the Secretary-Treasurer.  
Kind Sir:—

I, do here by complain on any and all Doctors and practitioners that are, and so called societies or classes, that practice or analyze a human body of the 5 special senses:

1. Touch
2. Taste
3. Smell
4. Hearing
5. Sight

for which has been found out some are doing to test out ones ability as to what they can do. When one can not be honest in their work a fine of \$100 to \$500 should be laid on he or she for dishonesty to a human body let be who it may as long as they practice, in the first place those who have studied Hygienic Physiology are not capable of complying with the law of human nature to know wright from wrong and their license should be lawfully taken away from all who have not and can not show the same, including Drugless Doctors.

I give you my complaint as your Board give me the Honest Hygienic system of Doctoring which no other can give to prove against you.

I Remain

Yours truly,  
MRS. \_\_\_\_\_  
Sacto., Calif.

#### DIAGNOSIS OF SARCOMA VERIFIED.

San Francisco, Cal., May 20, 1920.

To the Editor:—

In your issue, Volume XII, 1914, page 482, I reported a history of a case of sarcoma of the pylorus, treated by pylorotomy. The growth was about the size of a cherry, globular, regular in contour, and covered by a definite membrane.

At the time of the above report before the San Francisco County Medical Society, the diagnosis was sharply contested by at least one local surgeon. The pathologic report was made by Professor Ophuls of Stanford University, who was never in doubt as to the correctness of his opinion. The subsequent history of the patient is of interest in this connection.

The patient lived comfortably for three and one-half years, then developed an intermittent diarrhea with occasional obstructive symptoms. In March, 1918, about four years after the initial operation, I again explored the abdomen and found recurrence in the pancreas. Patient died a few months later. No autopsy was made but there can be no doubt that Professor Ophuls' original opinion was verified.

(Signed) T. W. HUNTINGTON, M. D.

#### ACKNOWLEDGMENT OF VIENNA RELIEF FUND

Last Christmas Doctors Walter Scott Franklin

and Wallace Smith sent the following appeal to a number of physicians:

"Doctor Alonzo Taylor described to us the fearful conditions in Vienna. Women and children are actually dying for lack of food and fuel and the conditions cannot be exaggerated.

"Those of us who feel grateful for the medical training which we received in Vienna, realize that the same starving women and children of the lower social order are the ones who contributed towards our success. Therefore it is incumbent upon us, who have received the advantages of this training to help alleviate their suffering.

Under the direction of Dr. Taylor we have made arrangements with the Hoover Organization to send food to Vienna, especially for the children.

"If you would like to contribute please send your check to one of the undersigned.

"Faternally yours,

"WALTER SCOTT FRANKLIN.

"WALLACE SMITH."

They have just received the following letter of thanks from Professor Lorenz, Vienna.

Vienna, February 8, 1920.

My Dear Colleagues:

Professor von Eiselberg joins me in most heartfelt thanks to you for your most timely gift.

Our appreciation of your generosity is enhanced by the thought that we can see in it a kindly feeling for our beloved city of Vienna.

"All you can read in the papers about tragic conditions here cannot compare with the reality. It is a sad truth that the entire middle class, including the University-bred, are slowly starving to death. Among the physicians especially is great distress. Those who can, have sent their families to the country, as food is hard to get here and only at enormous prices, train service having practically ceased. The only gay and extravagant people are the despised war profiteers!

San Francisco remains in my memory as a beautiful fairy tale and now it is one of the cities of prosperous and happy America to send help to poor, starving Vienna.

Dr. von Eiselberg and I are so happy to be able to use your gift to bring comfort and hope to many a desperate family of our colleagues, and send you in advance their most heartfelt gratitude.

Tell all the people of the far "bright west" that this summer will see a famine in Vienna not equaled by any famine in India! Only America can help us. America should vie to be not only the victor but also the preserver of the world.

Very truly yours,

A. LORENZ (Signed).

#### POLICY OF THE EPISCOPAL CHURCH IN HEALTH MATTERS

June 8, 1920

To the Editor: My attention has been called to your article in the May number in which the Episcopal Church finds its interest in the application of religion to health, bringing it into the unenviable company of department stores, of miracle men, and of Christian Science. Since I agree with you entirely in condemnation of the objectionable practices and cults at which your article is directed, may I ask space to explain the attitude of the Episcopal Church in this whole matter, so far as I understand and may represent it?

It is not the attitude of Christian Science which repudiates medicine, nor that of the miracle man and professional healer, who appeal to the awakening of a superstitious faith. It is rather summed up in your own phrase, "In conjunction, the priest and doctor make a stalwart team."

For a score of years, many people in the Episcopal Church have recognized that religion, in taking ill health as a visitation of God to be borne with resignation, and at the same time appealing



to the doctors to heal, was guilty of a strange inconsistency. Such people have come to accept the fact that God through every kind of good agency, is waging war against disease, just as against sin, and that we need to help people to use their religion to get rid of disease, instead of to encourage them in an attitude of resignation.

The Emmanuel Movement under the leadership of Dr. Worcester of Boston was one expression of this new view. In many churches, work on the line of the Emmanuel Movement has been continued for years. The work of Mr. Hickson, who recently held a mission in San Francisco, is another step in the same direction. It has the advantage of simplicity and direct religious appeal, over the earlier work done in this line.

What we are now trying to do is to keep vividly before the people this power of religion in the prevention and cure of disease. So far as I know, the clergy of the Episcopal Church have no intention or desire of undertaking healing in any sense independently of the medical profession. The prayer circles and special services are solely for the purpose of opening the inner recesses of the soul to the full power of God, so that every healing agency, whether medicine, surgery, nursing, psychotherapy or any other, may have the best possible chance. There is no disposition on the part of the clergy to emulate "miracle" workers or to pretend to have special healing powers. They believe, as do all religious men, that healing, like life itself, comes from God and that what all healing agencies do is to make possible God's work. They want to make God's approach to the sick more direct and complete than can be done by medicine alone. They want to work in conjunction with the physician; to help him; not to supersede him. As one of them recently said, "We want the time to come when physicians will send their patients to the Church as a matter of course."

Again, so far as I know, there are no fees connected with any work of this kind. There certainly ought not to be. The clergyman, to whom I presume reference is made, who has a down-town office, is not engaged in ordinary parish work, and in his down-town office, he represents not the Church, but a well-known English lecturer and mental healer.

To sum up, the Episcopal Church is undertaking nothing officially which could not at any time be submitted to any group of physicians who recognize the value of religion in life, with confident expectation of their approval. I would be unwilling myself to be associated in any movement which did not recognize in the fullest way the leadership of the medical profession in matters of health. If, in endeavoring to further this sane health movement, there appear in the Church, as by-products, some less well-balanced efforts, it is no more than what occurs in every profession—even in medicine! I will be grateful if you will give this statement publicity.

EDWARD L. PARSONS.

Bishop Coadjutor of California.

(Comment.—See editorial in this issue.)

## County Societies

### CONTRA COSTA COUNTY.

The Society met May 29, 1920, in conjunction with the Dental Society of this county, in the Abbott Building, Richmond. Dr. E. W. O'Brien, President of the Dental Society, presided. A report was rendered by Dr. G. M. O'Malley on the convention at Santa Barbara and a plea made by Dr. C. T. Wetmore for an increased support from the members of our Society to the League for the Conservation of Public Health. Dr. John Beard's application for a transfer from the Placer County

Society was received and voted on favorably. An interesting case was presented by Dr. U. S. Abbott, showing the results of war surgery on a poor chap who was struck by shrapnel.

The chief paper of the evening was read by Dr. A. W. Ward of San Francisco on Focal Infections of the Teeth, illustrated by lantern slides of X-ray pictures. Dr. Ward's experience showed very conclusively the close relationship which should exist between the dentist and physician, and endeavored to impress on the members of both professions the necessity of looking for infections in the mouth for causes of systemic disturbances. An interesting discussion followed.

The Dental Society proved a most hospitable host the balance of the evening when the meeting adjourned to the new Martin Grill where a banquet was served. A large attendance from both societies was present.

### IMPERIAL COUNTY.

The Imperial County Society was reorganized on May 3, 1920, with the following members: Drs. W. W. Apple, L. C. House, A. E. Elliott, F. A. Burger, W. T. Heffernan, C. S. Brooks, of El Centro; R. O. Thompson of Imperial; J. F. Parker, Eugene Le Baron and O. B. Dunham of Brawley; L. W. Mosher of Holtville; C. W. Anderson, E. G. Tillmans of Calexico. Dr. W. W. Apple was elected president, R. O. Thompson vice-president, C. S. Brooks secretary-treasurer.

A real live medical meeting was held, and a message was sent to Dr. John C. Yates, state president at San Diego, to pay the new society a visit. There are several applications before the membership committee, and programs are being planned. Space will be given the Imperial County Society in the San Diego County Bulletin for notices of meetings, reports, and items of interest. This bulletin has been sent to the valley men for several issues. Dr. Yates's year is starting well.

### SAN FRANCISCO COUNTY

During the month of May, 1920, the following meeting was held:

**Tuesday, May 25—Section on Eye, Ear, Nose and Throat. Symposium on the Pituitary Gland.**

1. Medical aspect of pituitary disease. Hans Lissner.
2. Eye symptoms of pituitary disease. Hans Barkan.
3. Transfrontal approach for pituitary growths. H. C. Naffziger.
4. Intranasal surgery of pituitary tumors. Report of 3 cases. E. C. Sewall.

Dr. George W. Pierce will leave about July 15th for special study in plastic surgery in England. He will be associated for several months with Major H. D. Gillies at Queens Hospital, Sidcup, England.

### LOS ANGELES COUNTY.

The county society's meeting took place May 6, at 8 p. m., in the Friday Morning Club House.

Dr. Rea Smith presided. Dr. Shoemaker, the secretary, announced a civil service examination for resident physician of the County Hospital with a salary of \$250 per month.

The president, Dr. Smith, stated that the California Hospital Directory will contain only the twelve-hour nurses. A nurse may work only twelve hours, but should not be allowed to interfere with the nurses who are willing to work twenty-four hours per day. Upon the suggestion of the president Dr. Moore moved that the society go ahead with the Los Angeles County Medical Nurse Exchange. It was seconded and carried.

The instructions to the state delegates on the bill of the anesthetists came up for discussion.

Dr. Toland stated that he was not in favor of

it. The matter should be left to the delegates for decision at the meeting; that we need nurses to give anesthetics. For the army no doctors were trained as anesthetists, but the nurses were, and did better work than men; that at Ann Arbor a nurse will be given a full professorship of anesthesia.

Dr. Piness in referring to the New Orleans meeting stated that Dr. Bainbridge related that in the coming reorganization only doctors will be anesthetists. Dr. Piness then moved that the delegates be instructed that the Los Angeles County Medical Association stands for the Bill.

Dr. Moore contended that he saw no reason why a doctor should want to give an anesthetic except to make his expenses while waiting for a practice. Dr. Moore thought the young doctor is not as competent to give an anesthetic as a nurse.

Dr. Piness called attention to the fact that the University of California has a professor of anesthesia; that there are twenty-six competent men anesthetists in Los Angeles who are making money. He only knew of one nurse who collects her own fees. In all other cases the surgeons collect the same.

The question was asked for on the motion that the delegates be instructed to report this society in favor of the Bill. The motion was carried by a large majority.

Dr. Anstruther Davidson spoke on "Syphilitic Osteomyelitis."

Among incurable cases sent from the surgical wards of the county hospital, were some interesting joint cases. Tuberculosis in the adult is frequently seen as a recrudescence of childhood infection but such a condition commencing in a joint in adult life is rare indeed.

The two cases mentioned were both syphilitic and were discharged as cured three months later.

All cases of osteomyelitis in children or adults are either tubercular or syphilitic or of some mycotic affection. Some men operate on osteomyelitis of the sternal end of the clavicle which is never anything else but syphilitic.

Laboratory tests often solve our difficulties but should not be relied upon any more than we should rely on our judgment alone. A case of arthritis of the elbow joint with discharging sinus gave a Wassermann negative and a positive T. B. test, but under syphilitic treatment the inflammation disappeared in a few weeks, the sinus closed and the man went to work.

Bone affections of puberty and childhood, except the multiple T. B. of the fingers, is never multiple, but syphilis is often multiple. A lad wrenched his hip jumping. He limped a few days and became incapacitated by pain. He was treated for sciatica. It was an epiphysitis of the femur and secondary infection of the epiphysal lines of the other bones. These cases are never tuberculous. This inflammation of the epiphysal line is caused by streptococci or staphylococci infection. These cases are heredo-syphilitic. After the focus is opened appropriate remedies will prevent secondary infection. The remedy is not arsphenamin or arsenic but iodine and iodides. Next to the X-ray, the temperature is the best guide. Tuberculosis is chronic as a rule with intermissions; epiphysitis is rapid. The temperature in T. B. is seldom over 99.6, in epiphysitis it is always above this point.

Dr. H. C. Rees spoke of "Acute Ascending Paralysis (Landry Type) with a report of a case."

In 1859, a French physician, Landry, described a disease which was characterized by a rather sudden onset and a rapidly spreading motor palsy without sphincter involvement, scarcely noticeable sensory disturbance, that usually terminated in death from respiratory failure in seven or eight days.

**Case History:**—The patient suddenly complained of severe weakness and slight nausea. He ate

breakfast the next morning after an apparently uneventful night. The following night he was restless on account of severe lumbar pain, slight numbness of hands and feet and transient nausea. The condition remained about the same for the next twenty-four hours. He began to complain that all food tasted rough. Incoordination was such that he had to be assisted, but could move his legs about with no drop of the toes, he had perfect control of his arms, although they felt numb. Perfect control of sphincters, temperature 98, pulse 78, respiration 18, blood pressure 121-78. The deep reflexes were markedly diminished, but none definitely abolished. The following day the patellar and plantar reflexes were absent. The next day he developed a severe cough and expectorated a great quantity of mucus. The temperature was 99.6, the pulse 108, the respiration 36 and labored. There was paralysis of the intercostal muscles and the diaphragm. There was slight dullness at the base of the right lung auxiliary line with moist rales. It seemed evident that the hypoglossal and glosso-pharyngeal nerves were involved on account of difficulty in mastication and deglutition. The patient died just six days after the onset of complaint. The heart ceased beating two minutes after the last respiratory effort.

Dr. Russell D. Carmen, head of the X-ray Department of the Mayo Clinic had for his subject "Roentgenology of Tuberculosis Enterocolitis, with lantern slides."

The Roentgen-ray is necessary to diagnose the condition. Shadows may be found in any lesion of the colon. There must also be a general clinical examination. Food remains at the cecum longer than at other parts of the tract. Pathologically there are tubercular nodules, sequelae of pulmonary tuberculosis. These nodules may be ulcerative; there are also fibrous and hypertrophic types. For diagnosis the colon including the cecum is filled under pressure and by the roentgen-ray, filling defects are seen with opaque enemata. The filling defects are not characteristic as they are also present in tuberculosis. Hypermotility, the passage of the bowel contents is another sign. Barium enemata give these opaque shadows. The absence of the barium, shown in the picture is due to spasm. Tuberculosis is more frequent in the small than in the large bowel.

#### The Los Angeles County Medical Association Meeting of May 20, 1920.

The society convened at the usual time, 8, P. M. in the Friday Morning Club House.

Dr. Rea Smith, the president, conducted the meeting. The first paper was that of Dr. Rex Duncan on "Radium Treatment of Malignancy in the Bladder and Prostate," with lantern slides.

Dr. Duncan mentioned that the bleedings of bladder tumors soon stop under radium treatment and good results are obtained, the same with prostatic cases. Radium offering more in these cases than any other therapeutic measure. Proper facilities should be present. The disagreeable part of treatment is the involvement of healthy tissue.

#### Discussion

Dr. Cecil said that the cases must be properly selected.

First: The inoperable cases with metastasis.

Second: The benignant tumor with a condition causing prostatic obstruction. In these types, although the radium is good for the carcinoma, the patient is dying from intoxication due to obstruction of urination.

Third: Early position of carcinoma of lobe of prostate found on routine examination per rectum. In the earliest type radium should be used. If dying from metastatic condition neither operation nor emanation will help. In prostatic obstruction urinary poisoning occurs.



At New Orleans and at the Mayo Clinic it was found that radical operation is as good in these cases as when used elsewhere.

Dr. Peterson—Three or four years ago Bannington used needles containing radium emanation. Some cases were not affected others softened and disappeared. There seems a definite resistance in some cases of carcinoma. Ingenious illustrations were given by Dr. Duncan on the screen of introducing needles with radium and supplementing this treatment with rectal treatment. The results cannot as yet be told. My experience is that radium is not a cure-all. Only a small proportion are cured, but when cancer is definitely established, then palliative measures by means of operation, is the only thing left. In malignancy of the bladder the story is different. The pathology does not spell the extent of the disease. It is an infiltrating disease with an ulcerating base. The lymphatics of the bladder wall, the tumor, is larger than seems by examination. You must penetrate the bladder wall deep. Some such tumors of the bladder wall are not affected by emanating rays. A radical resection should be followed by radium applications. In carcinoma of the bladder this gives the best results. A radical operation is no good when you cannot cure. In such hopeless cases, large doses of radium should be employed.

Dr. Duncan expressed his pleasure in the discussion. Radium should be applied post-operatively under certain conditions. As a prophylactic in cases when the operation does not remove all cancer cells. Bury the tubes in the wound. If cases could be seen early enough about 90 per cent. could be cured. In later cases in which a cure is not expected, hemorrhage can be stopped and you may tide them along for years with radium. Of course statistics would be better if the cases could be selected, but you can give palliative relief.

Dr. True introduced Mrs. Susan M. Dorsey who spoke in favor of the coming school bond issue of \$9,500,000.

Dr. Ellis Jones spoke on "Bone Transplantation" and illustrated the subject with telling effect by motion pictures. The tissue between the fragments forms a wall making union impossible.

Dr. Richardson in discussing the subject spoke of the value of bone transplants. He was impressed with the ununited neck of the femur where the neck had been absorbed, and a case where a bone graft had been a success but was useless until ankylosis was secured.

Dr. Thomas commented favorably, saying that we have been overlooking such cases. Such cases require the facilities of a hospital.

Dr. Myers urged a referendum on Industrial Insurance; that the voice of the society has not been respected. The resolution should be published in the Bulletin. All members should be given an equal chance on the fund. Dr. Thomas seconded but Dr. Duffield thought the time improper as Dr. Gibbons asked to have a letter written so that the panel could be enlarged and everyone be on it. Dr. Duffield expressed himself in sympathy with the resolutions but they should be postponed. It was agreed by Dr. Myers to wait until the next meeting.

#### MEDICAL PROGRAMS LOS ANGELES OBSTETRICAL SOCIETY

Time: May 18, 1920.

##### Program

1. Operative and Non-operative Treatment of Pelvic Infection.....Dr. Nahum Kavinoky
2. Management of the 3rd Stage of Labor and Changes in the Hemoglobin during the Puerperium.....Dr. W. C. McKee
3. A Few Cases Illustrating Diagnosis and Treatment.....Dr. W. H. Gilbert

#### UROLOGICAL SECTION

Of

The Los Angeles County Medical Association

Regular Meeting

May 4th, 1920

##### PROGRAM

1. Demonstration of a rare type of vesical calculus.....Granville MacGowan, M. D.
2. a. Demonstration of a case of leukoplakia of the bladder.  
b. Demonstration of a case of stricture of the ureter, patient and specimen.....H. A. Rosenkranz, M. D.
3. Demonstration of two cases of seminal vesiculectomy.....Robert V. Day, M. D.
4. Demonstration of cases:  
(a) Double uretero-vaginal fistula following labor.  
(b) Sigmoido-vesical fistula due to diverticulum of colon .....Anders Peterson, M. D.

#### HARBOR BRANCH

Of

The Los Angeles County Medical Association

Regular Meeting

April 27th.

##### PROGRAM

- "War Surgery in Evacuation Hospital No. 8"—Lantern Slides.....B. S. Chaffee, M. D.
- Discussion.....Gordon M. Grundy, M. D.
- "Cause and Treatment of Acute Non-tuberculous Abscess of the Lung".....B. R. Henderson, M. D.
- Discussion.....J. R. Silverthorn, M. D.

#### THE INNOMINATE SOCIETY

Regular Meeting

April 14th.

##### PROGRAM

1. Recognition of gross pathology of ovarian tumors at operation..Dr. W. H. Brownfield
2. Surgical aspects of pernicious anaemia.....Dr. W. H. Olds
3. The Los Angeles narcotic clinic.....Dr. John Nevius

May Meeting

May 18th, 1920.

##### PROGRAM

- Pneumonia in Southern California.....J. Mark Lacey, M. D.  
(Election of Officers.)

#### EYE AND EAR SECTION

Of the

Los Angeles County Medical Association

Regular Meeting

May 3rd, 8 P. M.

##### PROGRAM

- Clinical.  
(Important Business.)

#### LOS ANGELES MEMBER IS HONORED

At the Eighth Annual Meeting of the American Association of Anesthetists at New Orleans, April 26-27, Dr. Eleanor Seymour, secretary of the Southern California Society of Anesthetists, was elected Vice-President of the National organization.

This is a timely recognition of the very good work Dr. Seymour has been doing to advance the cause of the M. D.'s who specialize in anesthetics.

#### LOS ANGELES SURGICAL SOCIETY

Regular Meeting

May 18th, 8 P. M.

##### Program

- "Surgical Treatment of Carcinoma of the Breast".....F. K. Collins, M. D.

### Doctor's Spine Fractured

Dr. Harry W. Martin, an army doctor, is said to have dived into a shallow pool at Bimini Baths Sunday, May 2nd and fractured the first cervical vertebra and dislocated the two below it. Drs. R. B. Jenkins and W. W. Richardson fitted on the brace with the cage for the head, which will be worn for at least three months.

### Hospitals.

The performance of "Lilac Time" was donated by the management of the Majestic Theatre to the Maternity Cottage of Los Angeles, May 10. The work at the Utah street hospital is the care of mothers and their babies in homelike surroundings. The hospital aims to help families in moderate circumstances over a hard period in their lives expecting them to pay what they can afford.

Included on the executive board of the Maternity Cottage and Homeopathic Hospital are: Dr. F. S. Barnard, Dr. H. L. Shepherd, Dr. Anna Chapin, and Dr. Charles S. Salisbury.

### Pasadena Hospital.

Myron T. Hunt will be the architect of the new \$500,000 Pasadena Hospital. Dr. Raymond M. Mixsell will accompany the architect on a tour of the east to inspect modern hospitals and get data for the details of the local structure. Mrs. Adolphus Busch has thrown open the Busch Gardens for the benefit of the hospital. Admission charged will go to the building fund.

### U. S. Hospital.

The Government sanitarium at Arrowhead Hot Springs, San Bernardino County will be opened June 15th with a capacity of about 100 patients. A force of fifty to sixty nurses and doctors will have charge of the veteran's home under Dr. George Parker.

### Hospital For Whittier

The Austin-Murphy Company, Pasadena, will build a hospital at Whittier at a cost of \$100,000. Allison and Allison are the architects. It will consist of two stories with maternity and operating wings.

### ORANGE COUNTY

The June meeting of the Orange County Medical Society was held at James' Cafe, Santa Ana, where the Society were the guests of Dr. C. C. Violett. The members assembled around the banquet table at eight o'clock and after enjoying a luncheon of several courses were called to order by Dr. Violett who acted as Toast Master for the evening. The program of the evening consisted of a symposium on the progress of Medicine. The papers, which were brief and concise, related more particularly to the advancement of Medicine in Nineteen-nineteen. The following doctors participated in the program: Doctors Wehrley on Roentgenology; Robertson, Obstetrics; Wickett, Urology; Burlwe Surgery of the Chest; Johnston, Surgery of the Abdomen; Tralle, Eye & Ear; Newkirk, Nose & Throat; Clark, Sanitation and Preventive Medicine. The meeting was well attended and the program was well received. Dr. Brothers of Santa Ana and Dr. Osburn of Anaheim were elected to membership. A committee was appointed to consider a change in the management of the business affairs of the Society and matters pertaining to the monthly program.

### SACRAMENTO COUNTY

The regular monthly meeting of the Sacramento Society for Medical Improvement, was held at the Sacramento Hotel on May 25th. 28 members present.

Doctors Dunlap, H. Hall, and J. J. Hall were elected to membership in the Society, all having been in service.

Dr. Gundrum reported a case of Locomotor Ataxia in a male whose wife lately developed general paralysis. He thought it was evidence that there must be some forms of Spirochetes having an elective affinity for nerve tissue, to account for conditions such as above.

A report of the Board of Directors and of the Executive Committee of the Sacramento Hospital, failed to recommend an extension of the Staff Service from three to six months.

The various delegates and attendants at the State Society Meeting at Santa Barbara reported; they particularly brought to our attention, the necessity of watching approaching legislation, particularly in reference to licensure, antivivisection bills and the assaults so frequently made on the established medical practice acts.

The upward revision of the Fee bill under the State Compensation Fund was informally discussed, it being reported that the Compensation Board was favorably disposed to an increase in the fees.

The right of nurses to administer anesthetics and the special fee which they might claim for same, was also discussed.

### SAN BERNARDINO COUNTY.

San Bernardino and Riverside County Medical Societies combined forces for the last meeting of the year and held a high jinks at Glen Ranch in Lytle Canyon. There were present about 130 people, including doctors from the Los Angeles and Pomona Medical Societies, wives of doctors and their guests.

A dinner was served barbecue fashion in a grove near the mountain stream; following this came a program consisting of amusing songs and readings and speeches. Rev. George Laughton of Riverside emphasized the point that it is time for medical men to give attention to public questions and important political matters. Dr. Wm. Duffield of Los Angeles stated that unity and co-operation are necessary that physicians may have the proper influence in the settling of issues closely related to civic and individual welfare in this state; he congratulated the men of this section on having so successfully pulled off something absolutely new in medical circles, and said that the value of such a gathering and the pleasure of it appealed to him so strongly that he should endeavor to have the first fall meeting of the Los Angeles County of the same nature and should invite the men of the San Bernardino and Riverside County Societies.

The League for the Conservation of Public Health and "Better Health" was presented by Dr. D. C. Strong of San Bernardino.

One novel feature of the gathering was the introduction of those from the different societies by the secretaries of those societies.

The plans and program for the evening were arranged by Dr. Paul Simonds, secretary of the Riverside County Society, and Dr. C. L. Curtiss, secretary of the San Bernardino Society.

### SAN DIEGO COUNTY.

The San Diego County Society extends greetings to its sister county units throughout the commonwealth of California, and while expressing its appreciation of the high honor bestowed upon it in awarding to it the 1921 convention, wishes at this date to extend a cordial invitation to every state member to attend this our 50th anniversary. Already committees have been formed and plans laid to make this a memorable meeting. However, the measure of its success will rest with the individual members of the State Society. By early planning to meet at Coronado next May, by making provision for satisfactory accommodation at as early a date as possible and by planning to enter heartily into the scientific and social feast



that will be arranged for, you yourselves will determine the fulness of its success. Remember this is our first semi-centennial and we shall never see another.

An active drive is now on to recruit the entire membership of the County Society into the ranks of the League for the Conservation of the Public Health. The profession of San Diego County are giving freely of their time and money in a way to leave no uncertainty as to their interest in this splendid enterprise.

The Society at its meeting Tuesday, June 8, adopted a new general fee bill covering all phases of medical and surgical work. This fee bill is distinctly more in keeping with the present high cost of living and service of every description.

The Society held three very interesting meetings in the last three weeks. Two of them were featured by illustrated lectures on roentgen studies, one on the diagnosis of peptic ulcer by Dr. H. G. Leisenring, and one on the differential diagnosis of duodenal pathology by Dr. Lincoln Kallen. When our roentgenologists cut loose with some of their favorite studies it is time for the average Society member to look wise and say little. We opine that these were both highly scientific evenings, but do not care to have an opposing lawyer compel us to explain our position.

Speaking of lawyers the less we say the better of this despised profession after the recent ball game in which the medics ineffectually attempted to lower the laurels of the lawyers.

The Society on the evening of May 21 were delightfully entertained by Dr. Emmet Rixford of San Francisco with an informal talk on the mechanics of fractures and their treatment. The doctor's mode of approach to this subject is out of the ordinary and stamps him as a surgeon who applies to the intricacies of the fracture question a thorough knowledge of the mechanical problems involved, and expresses great resourcefulness in adapting available appliances to their correction.

Other recent guests of our Society have been Dr. R. E. Skeel of Cleveland, who hopes soon to locate in California. Dr. Skeel, an ex-president of the Ohio State Medical Association, can tell us some things helpful in obtaining the sort of a medical practice act which we feel we need in California. He had much to do with educating the Ohio public, including its legislators, to the point where they could see things medical in their proper perspective. Also Drs. Beck and Hyde of Chicago.

The Society plans to hold one of its delightful social functions at the Point Loma Country Club house on the evening of June 22.

The County Society did not hold its regular meeting on May 11th, as most of the members were planning to attend the Santa Barbara meeting. San Diego men were well represented on the scientific program of this meeting.

The following County members attended the session of the American Medical Association held in New Orleans the closing days of April: Drs. Churchill, Fox, Newman, O'Neill, Oatman and Pollock.

We are pleased to note the installation of a full time technician in the service of St. Joseph's Hospital. This service will be under the supervision of Drs. Pickert and Thompson, and is a step in the right direction in the matter of hospital improvement.

## SAN JOAQUIN COUNTY.

The regular meeting of the San Joaquin County Medical Society was held Friday evening, May 21, in the Fountain Room of the Hotel Clark, President C. F. English presiding. Those present were: Drs. C. F. English, L. Dozier, R. T. McGurk, C. D. Holliger, W. P. Lynch, J. W. Barnes, A. H. McLeish, W. J. Young, C. R. Harry, Margaret Smythe, Grace McCoskey, H. E. Sanderson, L. Haight, J. P. Martin, S. P. Tuggle, A. E. Edgerton, Hudson Smythe, J. E. Nelson, A. M. Tower, H. J. Bollinger, B. J. Powell, H. J. Vischi and D. R. Powell with Dr. A. W. Hewlett of San Francisco as guest and speaker of the evening.

The minutes of the previous meeting were read and approved. The Program Committee reported favorably on the application of Dr. A. C. Boehmer of Lodi, and upon motion duly made and seconded, report of committee was accepted and Dr. Boehmer was unanimously elected to membership in the Society.

Dr. Dozier presented a case of otitis of the lumbar vertebrae which had caused so much pain that the man was considered insane. By using an Albee graft a most excellent result had been achieved both from the functional standpoint and from the improvement in his mentality, restoring him to a perfectly normal individual.

Dr. Bollinger presented a case history of what at first was apparently a benign ulcer of the stomach, with cure under conservative treatment, but recurred 18 months later with definite carcinoma. A portion of the stomach was resected, the remainder being transplanted into the jejunum with an excellent recovery. The patient is still undergoing intensive X-ray treatments.

The delegate to the State Society, Dr. B. J. Powell, reported briefly on the recent meeting at Santa Barbara, telling of the new schedule to be in effect for Industrial Insurance cases, and also of the work of the League for the Conservation of Public Health in safeguarding medical legislation.

The paper of the evening was presented by Dr. A. W. Hewlett of San Francisco, who spoke on "Modern Advance in Diagnosis of Heart Diseases." He spoke of the importance of blood pressure examination and of the advantage to be gained by the use of the X-ray, particularly in detecting the size of the heart and to prevent confusion in cases of violent throbbing heart or where overlapping lung tissue might conceal the exact size upon percussion. He stated that too much importance was placed on systolic murmurs when unaccompanied by other evidences of heart disturbances, but that the diastolic murmur of mitral stenosis or aortic insufficiency had lost none of its old time importance. He admonished that the best point to listen for this was over the left edge of the sternum at the second interspace. He also mentioned the information given by the electro-cardiogram, particularly in determining the degree of hypertrophy and which portion of the heart was involved. In the cardiac irregularities he spoke of the respiratory type, usually occurring in young nervous individuals where the heart beats faster on inspiration and slower on expiration. He also spoke of the type of extra-systole and the more common type of auricular fibrillation. The doctor's paper was given more as an informal talk and covered many other points of interest in routine diagnosis of heart condition. It was discussed by Dr. Harry and Dr. McGurk, and upon request by Dr. Dozier. Dr. Hewlett then spoke in closing his paper, of the large doses of digitalis which he strongly advocated in order to get quick action, provided the patient had not received previous doses in the recent past.

The meeting then adjourned to partake of light refreshments.

## Report from A. M. A.

### REPORT OF DR. VAN ZWALENBURG, CALIFORNIA DELEGATE TO A. M. A.

I am pleased, herewith, to make my report as delegate to the meeting of the American Medical Association at New Orleans, April 26th to 30th.

This has been one of the most successful of the Association's meetings. The attendance was not as large as sometimes but the distance from the medical centers and the difficulty of securing hotel accommodations had much to do with this.

The scientific sessions were very well attended and the papers were of a high scientific order.

The arrangement of holding only one session per day for each section gave much more opportunity for men to visit other sections than their own.

California was very well represented. The names of many California members are found on the program. Sixty-two California names appear on the attendance register. This is not as large a number as should attend but under the circumstances I think it was doing very well.

A goodly number of these traveled on the same train going and similarly on the same train returning. This association in traveling added very materially to the pleasure and profit of the trip. In fact, it made the three days' ride each way a part of the Medical meeting.

Striking impressions of the meeting were the complete divorce of the business of the Society from the scientific sessions. The vast majority of men know nothing about the business side of an institution which handles for them approximately three-fourths of a million annually and has approximately three-fourths of a million accumulated in reserve and buildings.

The usual routine of business was transacted in the House of Delegates and also we might say the usual routine revision of the Constitution and By-Laws was made with no important changes nor very important legislation enacted.

The second striking impression was the multiplication of medical societies as evidence of the tremendous development of specialization in medicine.

When I saw, upon leaving, the announcement of the meeting of the American Society of Chest Surgery the following day, I was impressed with the diffuse ramification of these special societies. Many met just before, several after and most of them, of course, during the sessions of the American Medical Association. It emphasized to me the size of the problem before the profession today of how to bring to bear upon the individual patient these specialists, how to present the individual patient to all of these specialists and at the same time to allow each member of the examining group a competent fee for his work and not overcharge the patient.

Very sincerely,

C. VAN ZWALENBURG.

## Notice

### U. C. PEDIATRIC DEPARTMENT

This coming year the Pediatric Department at the University of California Hospital is undertaking an intensive study of the anemias which occur in infancy and childhood, including the grave secondary anemias and the primary anemias, such as splenic anemia and leukemia and also the hemorrhagic diseases such as hemophilia, purpura hemorrhagica, etc. Most of the physicians in the State are well acquainted with the work which the Hooper Foundation for Medical Research has

been carrying on on blood regeneration. We are in a position to take advantage of these fundamental studies on blood regeneration and hope to be able through clinical studies to parallel their scientific investigation. We would, therefore, like to request from the medical profession of the State cooperation in sending to us any children suffering with severe anemias or blood conditions which they would like to have studied intensively, so that we may have as much material to study as it is possible to obtain.

WILLIAM PALMER LUCAS, M.D.,

Professor of Pediatrics, University of California Medical School, San Francisco, Cal.

### MODERN HOSPITAL

The Modern Hospital, having long since outgrown its former quarters because of the increasing service it is being called upon to render in the hospital field, has removed its offices to its own building at 22-24 East Ontario Street, Chicago, which will hereafter be known as The Modern Hospital Building. The Modern Hospital Building will be a veritable center of national hospital, health, and welfare activities. It will house not only the offices of The Modern Hospital, the Modern Hospital Year Book, and Modern Medicine, but also the national headquarters of the American Hospital Association and the National Catholic Welfare Council (Division of Social Action). What this will mean in the way of more expeditious interchange of thought and activity and greater ease and co-operation between the number of national organizations at work in the hospital and kindred fields can readily be seen. Other developments are pending which, when consummated, will greatly enhance this center to all who are interested in these fields of work.

### THE CALIFORNIA TUBERCULOSIS ASSOCIATION

A special meeting and election of Officers and Directors of the California Tuberculosis Association was held May 12 at Santa Barbara. The work of the association in the past five years has increased the budget in the State for the work of the private tuberculosis associations from \$12,000 in 1914 to \$156,000 in 1919. Since that time nurses, clinics, and the open air schools have been established in every city and county in the state. The State association has at present their Occupational Therapy teachers working in the hospitals and many of the patients are helping to support their families from the proceeds of the work made in the institutions. A medical field secretary, a traveling motor clinic, a Crusade director for the schools, a rural nurse, assistance to patients suffering with tuberculosis and hospital for children with tuberculosis are some of the activities of the State Association this year. All of this is made possible through the sale of Christmas Seals.

### POST-GRADUATE SCHEDULE SAN FRANCISCO

The Children's Department of the University of California Medical School and Hospitals would be very glad to have practitioners who are interested in pediatrics, attend hospital rounds and see the work being done in the wards, the Out-Patient Department and laboratories, during the summer months, June, July and August. We are this year offering no set course but we are in a position to make a month's work at any time during June, July or August worth while to any practitioners who would like to take it up.

Clinical material is distributed between the children's wards of the University Hospital, Children's Hospital and San Francisco Hospital. Special attention will be paid to infant feeding, the commoner diseases of infancy and childhood, especially those dependent on nutritional conditions and the contagious diseases.

In the Out-Patient Department we have facilities



for studying such types of cases as congenital syphilis, cardiac diseases and feeding cases, as well as the more specialized clinics in mental, psychological and speech defects.

The different members of the complete staff will be available during the entire summer for this work, so that the general practitioner will have an opportunity of getting the point of view of such physicians as Doctor Porter, Doctor Fleischer, Doctor Ash, Doctor Lyman, Doctor Holsclaw, Doctor Bridgman and Mrs. Gifford.

Anyone wishing to take up a month's work, please correspond directly with me and I shall be glad to make any possible arrangement to suit individual needs and time.

WILLIAM PALMER LUCAS, M.D.,  
Professor of Pediatrics, University of  
California Medical School, San Francisco,  
California.

## Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

### Treasury Decisions

3023 states: "all prescriptions for intoxicating liquors must be made on form 1403 and must contain all the data called for by such form and *in addition thereto there shall be inserted by the physician the name and address of the druggist or pharmacist upon whom such prescription shall be drawn.*" This is now the law.

According to the Federal Anti-Narcotic act, every physician must re-register before July 1 of each year in order that he may have in his possession the prescribed narcotics during the fiscal year. At the time of writing this the forms for this purpose have not yet been distributed but probably will be distributed before this appears in print. Owing to the late date at which the forms are sent out, it is probable that the time for registration will be extended to August the 1st. Every physician should read the accompanying instructions carefully and then fill out the forms in accordance with these instructions. He may think that there is altogether too much red tape, that there is no reason for doing certain things in duplicate or triplicate but nevertheless he should do them. As in the case of the Light Brigade—

"Ours not to make reply,  
Ours not to wonder why  
Or prove an alibi"

But simply to do what we are directed. In that way time and trouble are saved.

Any physician who will be out of the state for some time need not register until he returns but he should remember that if he is not registered he has no right to use or carry narcotics or to prescribe them from July 1st until he does register.

Formulae for the manufacture of alcoholic beverages are being freely circulated. Most of these require a basic alcohol, and as alcohol is almost as difficult to obtain as whiskey or gin, some round-about means must be found for getting it. One method is to buy a supply of spirits of nitre and dilute this with boiling water taking it for granted that the ethyl nitrate will be volatilized. This, however, is probably not complete, and physicians

may expect cases of nitrate poisoning due to indulgence in an apparently harmless cocktail. The public should be warned as far as possible against this playing with edged tools.

The Council of Pharmacy and Chemistry has refused to admit "Syrup Leptinol" (formerly "Syrup Balsamea") to the N. N. R. for the following reasons—

First, because the manufacturers fail to give the profession information regarding either the amount of the potent ingredient or the method of determining its identity and uniformity; second because of the unwarranted recommendation for its use in such infectious diseases as pneumonia and epidemic influenza and for lack of satisfactory supporting evidence of its alleged therapeutic efficacy in other diseases and, third because the recommendations for its use appearing on and in the trade package constitute an indirect advertisement to the public.

Anti-Tuberculous Lymph Compound (Sweeny). This is put out by the National Laboratories of Pittsburgh, Dr. Gilliford B. Sweeny, "Medical Director." Just how Anti-Tuberculous Lymph Compound is made today is not stated. It is fair to assume that it is not made in such a manner as to bring it under the federal laws governing the sale of serums and similar preparations. The claims made for the preparation are uncritical and unscientific, mainly of the testimonial class. When some of these testimonials were investigated, every physician who answered the inquiry regarding his previous and present opinion declared in effect that he had long since ceased to have faith in the value of the preparation. The facts are that no serum or lymph has thus far been proved to have any value in the treatment of tuberculosis. Having examined the available evidence, the Council on Pharmacy and Chemistry declared Anti-Tuberculous Compound (Sweeny) not acceptable for New and Non-official Remedies. (Jour. A. M. A. April 3, 1920 page 965.)

Anti-Syphilitic Lymph Compound (Sweeny). This preparation is made by or under the direction of Dr. Gilliford B. Sweeny, whose researches (?) led to the production of Anti-Tuberculous Lymph Compound (Sweeny). According to the available information, this preparation is made by suspending benzoate of mercury in lymph from the bullock. The circular exploiting this preparation makes the statement that it is seldom necessary to continue the treatment beyond two months. If one chooses to be credulous, this would indicate extraordinary power for the mercury. That any physician could be induced to place his trust in this preparation is almost unthinkable. The Council on Pharmacy & Chemistry declared Anti-Syphilitic Lymph Compound (Sweeny) not acceptable for New and Non-official Remedies (Jour. A. M. A. April 3, 1920, p. 966).

## Clinical Department

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS

Case No. 7. April 27, 1916. Female, American, age 3 months. No. 11279. V. S.

**Complaint:** Vomiting. Referred by outside physician with diagnosis of "Malnutrition."

**Family History:** Father living and well. Mother living; she has had a pulmonary condition for two years—probably tuberculous although organisms have not been demonstrated in her sputum. She is now in the mountains where she went shortly after the birth of the child. The latter event caused an increase of symptoms, supposedly. One brother, aged 8 years and one sister aged 6 years, are both living and perfectly well. There are no dead children. The first

pregnancy, 11 years ago, ended in spontaneous miscarriage at 2-3 months; no others. Paternal and maternal grand-parental history negative. No history of nervous or mental disease in the family.

**Past History:** Full term (possibly two weeks beyond), normal delivery, birth weight nine pounds.

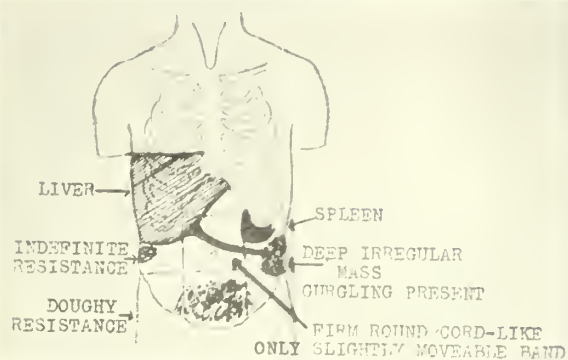
**Feeding History:** Never nursed, because of mother's condition. Put on Eagle Brand sweetened condensed milk, prepared according to directions, for two or three weeks; then put on Eskay's Food, also prepared according to manufacturer's directions, until present illness. The feeding interval has been very irregular, nevertheless the baby apparently thrived. At the age of two months the weight was 11 pounds, two months and three weeks 12¼ pounds; at the onset of the present illness 12 pounds.

**Present Illness:** The baby was apparently progressing well until two weeks before entry (approximately April 13th). Then there developed, as a single symptom, a very high fever, with of course some added irritability. There was no vomiting or diarrhea on that occasion, the bowels previously had been perfectly regular and the stools evidently normal. Under catharsis with *Ol. Ricini*, the temperature promptly dropped, and the baby seemed again in good condition. There were no symptoms at all referable to the central nervous system. April 25th vomiting set in, with a profuse watery, green diarrhea, 23 stools per day. The temperature was apparently normal. The physician in attendance noted the much distended abdomen but nothing else. He placed the child on water containing dextri-maltose but the vomiting of a very green, watery fluid persisted and occurred whenever fluid was taken, very much less in the intervals. It was not definitely projectile, nor in especially large quantities. It would occur directly after taking the bottle as a rule. Neither vomitus nor stools have contained blood. As late as this morning (April 27th) a yellow stool was passed.

**Physical Examination:** Small, pale, rather thin infant of three months, crying fairly lustily when disturbed, otherwise quiet. Head good shape, slightly prominent in occipital region. Measurements:

O. M.: 15 cm.	B. P.: 10.5 cm.
O. F.: 12.5 cm.	B. T.: 9.75 cm.
S. O. B.: 11 cm.	Circ.: 37.5 cm.

Hair soft. Skin clear, but marked pallor. Anterior fontanelle widely open, much depressed. Sutures negative. No craniotabes. Eyes—sclerae clear, pupils react to light and accommodation. Eye muscles negative. No strabismus nor myasthenia. Ears externally negative. Nose negative. Mouth: tongue moderately furred, tendency to bifid type. Throat not congested, tonsils moderate size. Gums negative. Superficial lymphnodes palpable, small, discrete. Chest: Thin, costal arch flaring mammae discrete. Chest: Thin, costal arch flaring mammae negative. Dilated venules. Lungs resonant throughout except at the posterior bases, which are slightly dull (from compression). Expansion infantile, diminished. Breathing restricted. Breath sounds clear, high pitched, puerile, occasional mucus rale over the primary bronchi and transmitted from them. No areas of bronchial breathing. Thymus apparently not enlarged. Heart dullness 1.5 cm. to left of nipple in fourth space, parasternal line on the right, second rib above. Sounds clear, well differentiated, with moderate sinus arrhythmia. No murmurs, no accentuation of  $P_2$  or  $A_2$ . Abdomen, much distended, very tense, skin glossy, distended veins, protruding umbilicus (considerable relaxation obtained by lavage of stomach and colon). Tympanitic. Liver palpable 5 cm. below the costal margin in the nipple line, 4 cm. in the parasternal line, notch easily felt. Edge and surface smooth, not pulsating, no nodules demon-



strated. Spleen palpable 3 cm. below the costal margin. In either flank, but especially on the left, is felt an indefinite irregular mass. Stretching across the abdomen, from the liver margin at about its middle, to a point much more deeply situated just below the spleen, is a smooth, firm, cord-like, practically immovable band, slightly semilunar in shape, about 1.5 cm., in diameter, slightly broader at the hepatic attachment. No free fluid could be demonstrated. Questionable increase of lower abdominal resistance. Slightly increased spasticity in the left flank. No peristalsis seen. Genitalia, prominent labia. Extremities thin. Lower, slightly flaccid. No localized swellings. No exostoses, scars or bullae. Reflexes, negative, no pathological reflexes elicited. Von Pirquet—24 hours—Human, negative; bovine, negative; control, negative. Forty-eight hours—Human, negative; bovine, negative; control, negative.

Wassermann in blood serum—negative.

Blood Count: Hemoglobin, 45%; R. B. C., 2,832,000; W. B. C., 14,600; Differential: Polys., 88%; Eosin., 0; Baso., 0; Lympho., 5%; Large Monos., 7%.

Urine: Acid, faint trace of albumin, sugar 0, acetone 0, diacetic 0, freq. polys., occasional R. B. C., many renal cells.

Stool Examination: Negative.

Lavage of stomach and colon reduced the distention considerably but not entirely. There was considerable gas eructated from the stomach but little passed from the colon. After approximately 60 cc. were run into the colon, the fluid would be expelled. There was no blood. The urine showed evidence of considerable nephritic congestion, probably largely mechanical.

### Discussion

No congenital structure could explain the above noted band across the abdomen. A persistent urachus would extend from the liver to the umbilicus. The general extent and shape of this mass does not suggest an intussusception. The mass in the usual intussusception is placed in the region of the ileocecal valve and is usually sausage shaped; besides in intussusception blood is usually found in the stools and by this time there should be marked prostration. A rolled-up, much infiltrated omentum would on the other hand occupy this site. We know that the progress of tuberculous peritonitis is often very insidious and this boggy mass lies in the most frequent position of the omentum, which is usually extensively involved and is characteristic of tuberculous peritonitis. This would also account for the difficulty in the stomach emptying itself and would account for the vomiting. The fact the liver and spleen are both enlarged would corroborate a diagnosis of tuberculous peritonitis. The fact that the von Pirquet reaction is negative is not at all unusual in rather acute tuberculous conditions in infants. If it could have been repeated several times it would undoubtedly have appeared positive



sooner or later. In such cases it is always indicated to repeat the von Pirquet a number of times before one can feel sure that it is negative. The high polymorphonuclear count is also not infrequently met with in acute tuberculous infections in infancy. The fact that the child had progressed for at least two months without having had any gastric or intestinal upsets from its feeding would indicate that the feeding was not primarily the cause of this gastro-intestinal upset though high carbohydrate feeding at this age might cause both vomiting and diarrhea but it would not account for the abdominal mass.

**Diagnosis:** The condition was considered to be most probably a tuberculous peritonitis and a surgical consultation requested. The surgeon considered the case to be one of incomplete obstruction and advised immediate laparotomy.

**Laparotomy:** Intestines slightly pale, small amount of free fluid in the abdomen. Coils of intestine matted together by plastic exudate which also covers the surface of the liver. The latter was much enlarged and presented a "rolled-up" lower border which together with the matted intestines and omentum was palpated as the "band" above noted. No tubercles were seen and there was no evidence of obstruction. The spleen was not palpated. Fluid was cultured. Abdomen was closed.

The baby withstood the operation and anesthetic very well and seemed in very fair condition during the remainder of the day. Murphy Drip was instituted and small amounts of breast milk were given after several hours. During the night the baby had a sudden collapse and before anything could be done to revive her, died.

**Note:** It might have been better to have tried non-operative treatment in this case except for the symptoms of partial obstruction. At this age miliary tuberculosis usually accompanies so extensive a peritonitis and the outlook is practically always fatal. During the last few years many cases of tuberculous peritonitis have been successfully treated by heliotherapy and this should probably have been tried before recommending an operation.

#### MOUNT ZION HOSPITAL NOTES SAN FRANCISCO

Surgical Clinic of Charles G. Levison, M.D.,  
F. A. C. S.

Case 1. A. B., aged 73. Hydrocele as large as a coconut. He also has an inguinal hernia which is very annoying and can not be held in position with a truss. Blood pressure: Syst. 225, diast. 165. High degree of arterio-sclerosis present. Under treatment the blood pressure fell to 180/120. Operation insisted upon by the patient on account of discomfort.

To simplify the operation orchidectomy was decided upon.

Under local anesthesia induced by a  $\frac{1}{2}\%$  solution of bisulphate of quinine, the testicle and hydrocele were removed and the cord was ligated at the internal ring. The vas was severed with the cautery but it was not included in the ligature. Closure was facilitated by the absence of the cord.

Patient left the hospital at the end of ten days, not having suffered in any way from his age or high blood pressure.

Case 2. E. F., aged 49. Bilateral oblique inguinal hernia, each being the size of a mandarin orange.

**Operation:** On the right side when the sac was opened an appendix 5 inches in length was exposed and the cecum was seen to form part of the sac. Diagnosis, sliding hernia of the cecum. No attempt was made to separate the bowel from the sac, but the part of the sac that was attached to the intestine was allowed to remain, and the viscus was returned into the abdominal cavity. The neck was closed with a purse-string suture

passed on the inner surface of the sac as high up as it was possible to reach.

On the left side it was thought that a similar type of hernia might be encountered. This supposition was verified at operation, for when the sac was opened the sigmoid was found to form part of the hernial wall. No attempt was made to separate the sac from the bowel, but it was treated as on the right side. Closure of the neck was accomplished by passing a purse-string suture on the inner surface of the sac through the lowest part of the wall of the sigmoid, which when the suture was tied, formed a part of the obliterated sac. Closure on both sides by the Bassini method.

Sliding hernias are not uncommon, but it is strange how little mention is made of them in works upon the subject of hernia. As a result unless one has had experience with this type of condition, the bowel may be opened, which disagreeable situation has happened in the career of many competent surgeons.

The foregoing statement is confirmed by Moschcowitz Ann. Surg., vol. 59, 1914, p. 610, who says: "Judging by a personal experience, this form of hernia is of more frequent occurrence than one would be led to assume by the number of cases reported. This can be accounted for in two ways; either the hernia has not excited sufficient interest in the operator, or (which in the writer's (Moschcowitz) opinion is more likely) the operator did not wish to be reminded of a rather unpleasant experience."

Since writing the above, another of this type of hernia has been seen at operation. When the sac was opened before a sliding hernia of the sigmoid was recognized there was some denudation of the outer layer of the bowel; not the peritoneal layer, because this was absent, but the muscular layer, which formed the posterior part of the sac. The condition showed a classic sliding hernia, the sac being anterior and the gut posterior. Closure was made by passing a purse-string suture as high anteriorly as possible through the sac (peritoneum), and as low down posteriorly as possible, passing the suture through the anterior surface of the bowel, catching the peritoneal layer.

Case 3. Male, aged 35. Diagnosis, oblique inguinal hernia. History of difficulty in starting urination.

At operation the sac was found to be very fatty and was seen to emerge from the internal ring. At the side of the ring an opening in the abdominal wall posterior to the situation of the conjoined tendon was present, indicating that a direct hernia was complicating the situation, an unusual condition.

Our observation has been to suspect a hernia of the bladder whenever we encounter a fatty sac, more particularly when a direct hernia is present. In this instance as the sac was being separated it was seen that it was becoming thicker at its base; further dissection revealed the fact that a hernia of the bladder was present. The bladder was separated from the sac and was returned to the abdominal cavity and the hernia was repaired by the Bassini method.

Our experience in the cure of hernia has led us to discard the overlapping method and we employ the cord transplantation of Bassini in almost every hernia, both direct and indirect, for with this operation properly performed, recurrences are the exception.

In passing it might be well to mention what in our opinion, constitutes the important factors in a Bassini operation properly performed:

The first point, and this applies to all hernia operations, consists of the very high ligation of the sac, thereby entirely obliterating the infundibulum. Kocher was one of the first to recognize this principle, and he accomplished the result by invaginating the sac, bringing it high up through the abdominal muscles. Lexer achieved a similar result by bringing the ligated sac

through an opening in the internal oblique muscles, thereby changing the direction of the infundibulum.

In the Bassini operation the usual place of recurrence is alongside of the cord as it emerges at the internal ring, so that the reconstructed opening must be very carefully made. Coley suggested that a suture be introduced immediately above the exit of the cord, the remaining sutures being inserted in the usual manner.

Of course it is important to reconstruct a new posterior wall by carrying the suture of the reflected "Poupart" well down to the spine of the tubes.

When the above precautions are observed, results are very satisfying.

Case 4. Male aged 18, was knocked down by an automobile sustaining a fracture of the humerus at its middle. Despite the various methods of traction and counter traction, reduction was not possible. In this type of fracture when there is an interposition of muscle, operation offers the only means of satisfactory approximation. Where there is so much displacement a method has been employed in our service for a number of years that has given excellent satisfaction. The advantage of the method over the intramedullary splint as popularized by Murphy is because of the ease with which the splint is introduced. In the Murphy operation one end of the transplant is readily passed into one fragment but the difficulty arises when the attempt is made to introduce the projecting end of the graft into the remaining fragment. At this stage it is often necessary to raise the bone from its bed quite a distance in order to accomplish the desired result, which produces an excessive degree of trauma.

The advantage over the sliding graft is that it requires no sutures to maintain the transplant in position, and when once the fragments are approximated there is no further tendency towards displacement, which can not be said of the sliding graft unless it is quite long, which implies a maximum of trauma.

In fractures of the middle of either the femur or the humerus this type of operation offers in our opinion the most satisfactory result where conservative treatment is futile.

The graft is cut with twin saws about two and one-half inches in length, allowing a collar of bone to remain. The graft is then forced down into the medullary cavity and one end is driven out of the fracture into the medullary cavity of the corresponding fragment; when this has been accomplished approximation is perfect and there is little or no tendency toward subsequent displacement.

Figs. 1 and 2 illustrate the fracture and the result of the sliding intramedullary splint.

Figs. 3, 4, 5 and 6 show the technique of the operation.

Case 5. Patient, aged 38, carpenter. Has always been well until his tonsils were removed in a neighboring city about 8 months ago. One week following the operation he was seized with a chill, high fever, pain in the chest anteriorly and to the right of the cardiac region. For three months subsequently he was confined to his bed running a high temperature, and he was expectorating quantities of very fetid sputum which contained streptococci of various types, but no bac. tub. Blood, polys. 86 per cent.

Phys. Ex. There is marked dulness of the right chest wall anteriorly, the fifth rib occupying its centre. Large bubbling rales are heard over this area and breathing is diminished. The history, putrid expectoration, the physical findings, together with the X-ray picture made it a simple matter to diagnose a lung abscess. This was confirmed by aspiration. See Fig. 7.

Feb. 25, '20, a portion of the 5th rib anteriorly was resected under local anesthesia. The

pleural cavity at this point was found obliterated; an aspirating needle introduced into the lung evacuated pus similar in character to the expectoration. The galvano cautery was then passed along the track of the needle and the abscess was opened. Despite the fact that the cavity had been opened there was not a free discharge of pus for two weeks, the patient's condition being very unsatisfactory. Subsequent to this time the discharge which was of the same character as the expectoration became very profuse.

At this date, which is two months after the operation, the patient is convalescent and he has gained ten pounds during the past three weeks. The wound of the chest has almost healed, the cough is very much diminished, the expectoration has lost its foul odor and the quantity has been reduced to a negligible amount.

## Why We Believe in Proper Medical Education

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE CITY AND COUNTY OF SAN FRANCISCO.

Department 5. Hon. John Hunt, Judge.

A. T., Plaintiff, vs.

City and County of San Francisco, etc., et al.

REPORTER'S TRANSCRIPT, May 6, 1920

The reporter's transcript, omitting certain objections, arguments of attorneys and portions thereof, not dealing with the subject of diagnosis, is as follows:

### TESTIMONY OF JOHN H. ATKINSON,

called as a witness on behalf of plaintiff; sworn.

#### DIRECT EXAMINATION.

Q. What is your profession, please, Doctor? A. What is my profession? Q. Yes. A. A drugless physician. Q. Are you a regularly licensed osteopathic physician? A. Yes, sir. Q. And, Doctor, with respect to the medical education which is required to obtain a license to practice osteopathy, could you give us some idea of the similarity of that course to the one required of a regular physician? A. The course is similar, excepting that we are not required to take surgery, or we are not required to give medicine. Q. You say the course is similar with the exception of surgery? A. We do not do major operations, nor do we give medicine or drugs. Q. You have been practicing your profession here, Doctor, for how many years? A. Twenty years. Q. Here in San Francisco? A. Well, in San Francisco for 15 years, medicine before that time in Europe. Q. You practiced medicine before that time in Europe? A. Yes. Q. And you were then a graduate physician as well as an osteopath? A. I was, yes, sir. Q. Now, Dr. Atkinson, you are acquainted with Miss —, the plaintiff, are you not? A. I am, yes. \* \* \* Q. The following October 10, 1919, did you, Dr. Atkinson, give her a course of treatment? A. I did. Q. Before entering upon this course of treatment, did you make an examination of her, a physical examination? A. I made my regular examination which is from the eye. I asked no questions, I take my own diagnosis from the eye of what I find from the eye, I take notes of it on my chart. Q. Now, in the examination that you made of Miss — in October, 1919, you asked her no questions at all? A. No questions whatever. Q. Now, what was the result of the examination which you made of Miss —? A. The result of the examination: in the first place I found a severe shock to the nervous system. \* \* \* Q. By looking in the eye you found that there was a shock to the nervous system? \* \* \* THE COURT: Q. By looking in her eye did you conclude that she sustained a severe nervous shock? A. I might state that every region, part or organ of the body is marked— Q. (Interrupting) Answer the question. (Question read). A. The sign of a severe nervous shock was denoted in the eye, in the iris of the eye, on the iris of the eye. This symptom is known as iridology, or a diagnosis from the eye. Q. Is there something abnormal in the appearance of her eye that you observed? A. There is, in every person certain changes take place. Q. Not in every person, but in her case was there anything abnormal in her eye? A. There was. Q. Tell the jury what it was, and wherein it looked any different than any other eye. A. The change, the pigment. \* \* \* there are certain changes take place in the eye in normal health, and in abnormal health there are certain changes take place, we break an arm or a leg, that thing will register on the eye immediately, if you know how to read it, just the same as a meter will register anything in the house. Q. Is it possible for you to explain, in plain English, and tell the jury and myself, what is the difference in the appearance of the eye, or are you incapable of stating that in plain, ordinary English? A. The difference was between the normal condition and the abnormal condition. Q. That means



the difference between regular\* and irregular, but I am asking you specifically what did you notice about her eye, particularly. A. We notice what are known as nerve rings, a broken-down nerve condition will put a ring or a circle in the iris of the eye. Q. Did you say you observed those circles? A. I did. Q. Would that be apparent to anybody but you? A. Any person that their attention would be called to it. Q. But otherwise, to the general public, the eye would look exactly the same as any person in normal condition? A. Probably. Q. But you discovered these things? A. There are certain schools that teach these things. Q. But I am speaking about the ordinary persons like ourselves for instance, you would say that that peculiarity might exist in the eye, and be impossible for us to observe it? A. You would observe it if your attention would be called to it. Q. What do you mean by calling attention to it, somebody telling you that he sees circles in the eye? Can the ordinary person, simply by looking at the eye, discover these circles that you say are in it, not by having their attention called to it, but from his own observation? A. Not necessarily, you would not think of it, naturally you would say that "I do not see any difference in their eye than I do any other person's eye"; it is a matter of education along that line. Q. You claim it takes an educated man to discover these circles in the eye? A. It does. Q. And you claim you are such a man? A. I graduated for that purpose. Q. Do you claim that you are such a man? A. I do. Q. Well, Dr. Atkinson, passing from the condition of extreme nervousness which you diagnosed to exist in Miss —, what physical conditions did you discover as the result of your examination? A. I noted that there had been an old fracture of the right tibia, the right leg, just above the ankle, an old fracture on the right leg, just above the ankle. THE COURT: Q. Did you have to look at the fracture to reach this conclusion that you arrived at by the eye? A. I had not looked nor made any physical examination of any kind when I noted this, I had not looked at the leg at this time. Q. How did you come to see this, then, if you had not looked at it? A. Those things are marked also on the eye. Q. You could tell, from her eye, that she had a scar on her leg? A. You certainly can. The next thing that I found was that there had been a dislocation on the left side between the head of the femur and the acetabulum, that is a dislocation of the left hip joint. Q. Could you tell that through the eye, too, Doctor? A. Yes, sir; the next thing \* \* \* was that I found what appeared to be a traumatic injury to the spine, in the lumbar region, \* \* \* and that appeared to be between the first and fourth lumbar vertebrae. Q. You could tell the exact location on the spinal column, by looking at the eye of the patient? A. Yes; and there was a new formation, a new growth in the abdomen between the same region. A JUROR: Q. What does that mean, "growth"? A. It might be a tumorous growth, it might be a cancerous growth, it was a new growth; I did not make any tracing out of that to find out what it was; I noticed that there was a growth there, later I verified it. THE COURT: Q. You felt that? A. I felt there afterwards to find out. I found out an apparent lesion here on the floor of the fourth ventricle of the brain. Q. Repeat that. A. That is, it seemed to be a sort of a little blood clot or rupture, or it had been from some violence or jerk or force to have caused a little lesion in the brain; and that was the result of my eye diagnosis. Q. Well, did you afterwards (verify) this from a physical examination? A. I did. THE COURT: Q. Why was that necessary if you found it all out by looking at the eye? A. Usually to prove your conditions you will verify them, if possible. Q. So you are not certain by the eye? A. We are. Q. Well, then, why do you find it necessary to go further, if you are certain? A. The young lady came for treatment, and in giving treatment naturally we verify those. Q. Why verify those conditions if you are certain? A. It would not be necessary to verify it to be certain. Q. But you did? A. When you can verify it, when you go to give treatment for to convince a patient, if you tell a person he has a certain thing the matter with them and they do not tell you, and you can convince a person that there is such a thing the matter, when you prove it to them. Q. But your eye observation, according to your statement, that rendered you certain that all these conditions existed? I ask you why then, if you were certain about it, you thought it necessary to go further? A. The patient might not be certain about it. \* \* \* Q. You did not treat this patient? A. I did. Q. What did you do? A. I gave her an osteopathic treatment, and I adjusted the dislocation. Q. What dislocation? A. Of the head of the femur. I pulled it back in place. Q. What? A. I reduced the dislocation. Q. On which side of the femur, whereabouts was the dislocation which you say you adjusted? A. On the left side. Q. Whereabouts, what portion of the femur? A. This joint here (showing). Q. Near the neck of the femur? A. Yes; where the head of the femur enters into the acetabulum. Q. So you found that that had been removed? A. Not removed; it was partially dislocated—it was a partial dislocation. Q. Well, could the patient walk in that condition? A. Not very well. Q. So there you got an objective symptom? A. Yes, sir. Q. You did not have to look in the eye to find that out? A. No; but I looked in the eye first. \* \* \* \*

## CROSS EXAMINATION ON BEHALF OF DEFENDANT CITY AND COUNTY OF SAN FRANCISCO

Q. Where are you a graduate from as a physician? A. The University of Glasgow. Q. And where is this other school of this eye-system? A. I am also a graduate from Chicago, I graduated from the eye in London. Q. What place in London? A. In Liverpool. Q. Which is it, Liverpool or London? A. I have been graduated from both; I graduated from one school in London. Q. Which college in London? A. The Pantopathic. THE COURT: Q. What does that mean? A. It means all things; just about the same as our drugless schools today. Q. And in Liverpool what did you graduate from? A. I graduated along the same lines, along some of our newer methods, it was known then as a different branch of the osteopathy, it was known as a drugless school at that time. \* \* \* Q. Now, you simply look in the eye and diagnose from that? A. I do. Q. These different things that you say you found wrong with Miss —, did you find different indications in the eye that showed those, or were they all visible at once? A. Oh, no, there are different areas in the eye, just like taking the different points of a compass, there are certain areas and they show forth— Q. (Interrupting) And what did you see in the eye that indicated that there was something abnormal with the patient? A. You may see a little speck, a spot, a difference in the depth of the coloring matter, such as the blue part of the eye will turn gray, which will simply mean inflammation, a catarrhal condition will turn a different color; a poison will turn a dark color, and so forth. Q. And from that you can elicit the ailments that the patient has? A. I have done it for 20 years, and I have never had any one come back and say I did not give them the right diagnosis. \* \* \* Q. Do you think it would be possible for a person with a dislocated femur to get off of one car, walk a block or two on the street, and get on another car, go up the steps, leave that car and go up the steps to her house and lie down, without noticing any dislocation? A. Well, a partial dislocation—a complete dislocation you would not be able to do it at all, but on a partial dislocation, that is, where the ligaments and so forth are only strained, you could do it. \* \* \* Q. Wouldn't it be impossible if that femur be dislocated? A. It would be impossible if it was completely dislocated. \* \* \* Q. How much of a dislocation did you find? A. The ligaments connecting there were strained and when I put her in the proper position for to adjust it, they cracked right in, probably it was out about three-eighths of an inch, three-eighths to half an inch. Q. In which direction, Doctor? A. To the outside, would make the leg at that time probably a little short. Q. Would cause her to limp, wouldn't it? A. It would cause her to limp, and afterwards we got her heels together and I stretched them out. \* \* \*

## Medicine Before the Bench

In this column will appear with appropriate comment, from month to month, court decisions and proceedings affecting the various phases of medical practice, the conduct of hospitals and the enforcement of public health laws.

### DOCTOR NOT INSURER OF RESULTS

#### Judge Dudley Kinsell Dismisses Action Against Doctor Majors

For the seventh time the same case has been brought against Dr. Ergo Majors and likewise dismissed seven times because of lack of evidence. The persistence of the plaintiff's attorney in the force of so many defeats is remarkable.

The action, entitled Andrew Martin plaintiff vs. Dr. Ergo Majors defendant, was filed in the Superior Court of Alameda County. The plaintiff claims heavy damages for the death of a nine year old daughter by reason of the alleged negligence of Dr. Majors while acting as County Physician in caring for the indigent sick.

The seventh amended complaint which has just been dismissed, charged Dr. Majors with having failed to use the remedies and treatments ordinarily used by physicians and surgeons practicing at Oakland, and thereby failed to prevent the child from contracting the disease of tetanus, and that early in the treatment the child had every symptom of tetanus, and that the physician failed to use the ordinary remedies and treatments therefor known to the ordinary physician and surgeon of the community, and that the child died of tetanus.

The case came on for trial before Hon. Dudley Kinsell, Judge of the Superior Court, and a jury, March 24, 1920; Messrs. C. A. Linn, Frank J. Mahoney, and John W. Preston appearing for the plaintiff; and Messrs. D. C. Dutton, Greene Majors and Hartley F. Peart appearing for Dr. Majors.

After the jury was impaneled, plaintiff's counsel made their opening statement of what they expected to prove on behalf of the plaintiff; they stated that they expected to show that the little girl ran a sliver in her foot and was out of school three or four days by reason thereof, when the truant officer discovered the condition of the foot and took the child to the doctor; that the doctor lanced the swollen foot and that the condition of the child was improved on the occasion of subsequent visits to the doctor's office; that she, however, had every symptom of tetanus at a certain period during these visits and that the doctor failed to administer anti-tetanic serum, that it was not the administer anti-tetanic serum, that while a prudent and careful doctor would administer anti-tetanic serum, that it was not the practice of the ordinary physician engaged in his profession at Oakland to do so, but that as a matter of law the child had a right to expect that the doctor would administer such serum, which would have given her a fifty per cent chance of recovery from the disease.

Upon such opening statement the attorneys for defendant moved for a judgment of non-suit and dismissal upon the ground that the doctor was not an insurer of results. While contending that the facts would show that when the child was first brought to Dr. Majors he found pus present and that the wound was so old that the administration of the serum would be unavailing, and that there were no symptoms of the disease present at any time while under his care, Dr. Majors' attorneys nevertheless maintained that even taking the plaintiff's statements of his expected proofs in their fullest meaning, that no judgment against the doctors could stand upon them, it not being alleged that the doctor had by unsanitary equipment or instruments infected the child or that the doctor could have saved the child's life by the use of any remedies known to the profession.

After extended arguments Judge Kinsell granted the motion and dismissed the case. Plaintiff's counsel expressed their intention of appealing to the Supreme Court.

The legal question involved is entirely novel in California, but there are decisions in eastern states sustaining the principle announced by Judge Kinsell in his decision.

#### CONSTITUTIONALITY OF MEDICAL PRACTICE ACT ATTACKED AND AFFIRMED

One of the profitable pastimes of various cults, who desire to make money at the expense of public health and in defiance of the laws of the state, is to attack the constitutionality of the laws that are made to safeguard the public. Almost invariably when one of these lawless incompetents is arrested for endangering the health of the community by treating and charging the sick without any known qualifications he sets up a cry that he is being persecuted by a mysterious medical trust. When a law breaker is arrested for selling real estate without a license, running an automobile without a license, hunting without a license, running a jitney without a license or any other occupation for which the state of California demands a license, there is no public clamor that the real estate trust, or the automobile trust or the hunter's trust, or the peddler's trust or the jitney drivers' trust is trying to persecute somebody. The law is made for the protection of the public and must be administered impartially to all.

The clamor of some chiropractors, a small group

of osteopaths and Chinese herbalists who either have not the qualifications to pass the easy examinations given by the State of California or refuse to recognize the authority of the state to examine them will not affect the impartial attitude of those entrusted with the responsibility of enforcing and interpreting the laws.

The District Court of Appeals in a recent opinion upheld the Superior Court of Sacramento in finding T. Wah Hing, a Chinese herbalist, guilty of violating the Medical Practice Act. Hing made the old familiar attack on the Constitutionality of the law, which a few inferior newspapers filled with chiropractic and herbalist ads, seem to regard as new and meritorious.

If the construction of the law were left to these defiant chiropractors, herbalists, or to any private group as the court states, "all persons would be permitted to practice medicine or any mode or system of healing, without being licensed and would make the matter of procuring a license or certificate merely optional." The raid upon the public health that would be made by clamorous charlatans and quixotic quacks if examinations were abandoned and ignorance turned loose is fearful to contemplate.

The People of the State of California were represented by Attorney General U. S. Webb and J. Charles Jones deputy attorney general in the case against T. Wah Hing who held himself forth as ready to treat any kind of a case. Hing was tried, convicted and sentenced to imprisonment in the county jail of Sacramento for a term of four months and by a fine of \$500.

#### Medical Items in California Press

##### DR. JAMES H. THOMPSON ARRESTED AGAIN

Dr. J. H. Thompson arrested for the fifth time by the Oakland police on a charge of performing a criminal operation.—San Francisco "Examiner."

The Board of Medical Examiners at the February 1920 meeting, revoked the license of Dr. Jas. H. Thompson who caused a writ of review to be issued and the case is now pending in the Superior Court of San Francisco.

##### Reciprocity Certificate Denied

Tanzo Yoshinaga, Japanese physician, denied reciprocity certificate based on Wyoming credentials. He was arrested in Sacramento under the license issued to K. Isari who was at the same time in Los Angeles.—Sacramento "Bee."

##### FALSE TITLE PUNISHED

Dr. William Lochman of Los Angeles was found guilty of practicing under a name other than his own at a hearing before the Board of Medical Examiners in Los Angeles, February 18, 1920, and sentence was suspended until the June, 1920, meeting.—Los Angeles "Record."

##### COLLECTED CLIPPINGS ON MEDICAL LAW ENFORCEMENT

##### President of Chiropractic College Arrested Three Times

"Dr." A. W. Richardson, president of the California Chiropractic School, 209 Powell Street, San Francisco, was arrested in April on a battery complaint sworn to by Lee Landers, 1110 Fourth Avenue, Oakland. Landers said Richardson attacked him because Landers complained to the State Board of Medical Examiners that he had been fleeced by the authorities of the Powell Street College.

May 15 "Doctor" Richardson was arrested on a charge of violating the Medical Practice Act. When his case was called in Judge T. I. Fitz-



patriek's court the "Doctor" failed to appear. A bench warrant was issued for his arrest.

"Doctor" Richardson was an active advocate of Assemblyman Edwin Baker's chiropractic measure during the last session of the legislature.

#### More Chinese Herbalists Arraigned

We have often been asked what class of people patronize Chinese herbalists. We are unable to answer, but a number of the "herbalists" have been held to answer by various courts for practicing in violation of the law.

Among these we find Chow King of Turlock, Yung Yung Herb Co., P. Hsu Oriental Herb Co., Tom Paul and Wong Ting of San Jose. L. C. Yung and S. H. Wong were fined \$100 each by Judge M. R. McCormack in Fresno, and Poo On was sentenced by Judge J. C. Needham of Modesto to ninety days in the county jail and fined \$500 for practicing medicine without a license.

Any officer charged with the enforcement of the law who fails to prosecute law violators is encouraging contempt for the law. It is gratifying to observe that most of the district attorneys and judges realize the importance of enforcing the laws governing the practice of the healing art impartially all the time.

#### Chief of Medical Institute on Trial Again

Dr. Herman Silverman of Los Angeles, indicted more than two years ago on a charge of using the mails in a scheme to defraud, was put on trial before Federal Judge Trippet on March 31, 1920. Silverman conducted a "medical" institute at the time of his arrest in 1918 and at his first trial he was declared insane, being later committed to the State Hospital at Patton. He was later restored to competency and resumed practice in

### Obituary

#### J. HENRY BARBAT, San Francisco

Dr. J. Henry Barbat, who died at his home in San Francisco on April 22, 1920, in the 58th year of his age, was a graduate of both the Department of Pharmacy and Department of Medicine of the University of California.

After his graduation in medicine in 1888 he opened his office in San Francisco and continued in practice there until his final illness. Early in his career he devoted himself to the intensive study and teaching of anatomy and soon began to specialize in surgery, later becoming recognized by his colleagues as a surgeon of great ability. The confidence and personal regard which his patients felt for him in so marked a degree was the natural reward for his skill as a surgeon and his personal qualities as a man, for he was not only a conscientious and unusually well informed surgeon and skillful operator but the sincere interest that he took in his work and his kindly and cordial manner caused his patients to regard him as their personal friend as well as medical adviser whose coming brought confidence and good cheer as well as the proper technical care of their cases.

In addition to the practice of his profession, he was actively interested in allied work. During the period of his career he was President of the State Medical Society, President of the County Medical Society, President of the City Board of Health. He was a Fellow of the American College of Surgeons, a member of the American Therapeutic Society and was also connected with and a leader in many other activities.

While recognized as a leader in his profession it was as a man that his memory will live in the hearts of all who knew and loved him as a staunch and loyal friend, always to be depended upon in prosperity or adversity.

E. B. FRICK, M.D.,  
Colonel U. S. Army (Retired).



#### DEATHS FOR JULY

Todd, Francis Joseph. A graduate of Michigan, 1883. Licensed in California, 1894. Died in Oakland, California, April 27, 1920.

Curtis, Chas. C. San Pedro, California. A graduate of Hahnemann Medical College, Chicago Illinois, 1874. Licensed in California, 1897. Died March 17, 1920, in San Pedro, California. Age 76.

Curtis, Ralph Gardner, of Hollister, California. A graduate of Jefferson Medical College, Pa., 1901. Licensed in California, 1901. Died in San Francisco, March 22, 1920.

Zimmerman, I. M., San Diego. A graduate of University of Warsaw, Russia, 1885. Licensed in California, May 26, 1916. Died March 15, 1920.

Conrad, David A., Santa Barbara, California. A graduate of University of California, 1893. Licensed in California, 1894. Died in Santa Barbara, April 6, 1920.

Zederbaum, Adolph, Los Angeles. A graduate of University of Berlin, Germany, 1883. Licensed in California, 1917. Died in Los Angeles, May 1, 1920.

Palmer, W. H. A graduate of Willamette University, Oregon, 1889. Licensed California, 1897. Died in Napa, California, April 15, 1920.

King, Chas. Lee, of Pasadena, California. A graduate of Chicago Medical College, 1880. Licensed in California, 1894. Died in Pasadena, May 5, 1920. Was a member of the Medical Society, State of California.

Scott, G. H. A graduate of Jefferson Medical College, 1857. Licensed in California, 1898. Died in Long Beach, California, May 10, 1920. Age 90.

Valle, Chas. C. A graduate of St. Louis Medical College, Missouri, '79. Licensed in California, 1885. Died in San Diego, June 5, 1920. Age 70.

Hall, T. D. A graduate of the California Medical College, California, 1886. Died in Oakland, California, May 31, 1920. Age 71.

# California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

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Contra Costa.....Dr. P. C. Campbell, Richmond  
Fresno.....Dr. D. I. Aller, Fresno  
Glenn.....Dr. W. H. Walker, Willows  
Humboldt.....Dr. L. P. Dorais, Eureka  
Imperial.....  
Kern.....Dr. C. A. Morris, Bakersfield  
Lassen-Plumas.....  
Los Angeles.....Dr. Wm. Wenzliek, Los Angeles  
Marin.....Dr. W. F. Jones, San Rafael  
Mendocino.....Dr. O. H. Beckman, Fort Bragg  
Merced.....Dr. Brett Davis, Merced  
Monterey.....Dr. T. C. Edwards, Salinas  
Napa.....Dr. Robt. Crees, Napa  
Orange.....Dr. H. A. Johnston, Anaheim  
Placer.....  
Riverside.....Dr. Paul E. Simonds, Riverside  
Sacramento.....Dr. S. E. Simmons, Sacramento  
San Benito.....

San Bernardino.....Dr. C. L. Curtiss, Redlands  
San Diego.....Dr. Robt. Pollock, San Diego  
San Francisco.....Dr. Le Roy Briggs, San Francisco  
San Joaquin.....Dr. Dewey R. Powell, Stockton  
San Luis Obispo.....Dr. Paul K. Jackson, San Luis Obispo  
San Mateo.....Dr. A. L. Offield, Burlingame  
Santa Barbara.....Dr. Robert W. Hartwell, Santa Barbara  
Santa Clara.....Dr. Chas. Richards, San Jose  
Santa Cruz.....Dr. J. C. Farmer, Santa Cruz  
Shasta.....Dr. F. Stabel, Redding  
Siskiyou.....  
Solano.....Dr. A. V. Doran, Vallejo  
Sonoma.....Dr. N. Juell, Santa Rosa  
Stanislaus.....Dr. E. F. Reamer, Modesto  
Tehama.....  
Tulare.....Dr. J. T. Melvin, Porterville  
Tulumbne.....  
Ventura.....Dr. C. A. Jenson, Ventura  
Yolo.....Dr. Frances L. Newton, Woodland  
Yuba-Sutter.....

Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVIII

AUGUST, 1920

No. 8

## THE NOVEMBER BALLOT

The ballot that will be placed in the hands of each qualified voter of California that goes to the polls on November 2 will require considerable study to enable one to cast it intelligently. Besides selecting honest men and true for the national and state legislative bodies, presidential electors, judges and others to man parts of the government machinery, each voter will be called upon to give his final judgment upon anti-single tax measures, a land measure exempting all improvements on farms from taxation, a measure prohibiting insurance combinations and permitting banks to write insurance, a direct tax proposal offered by the University of California, a proposal to raise interest on highway bonds and make the substantial changes, an initiative measure raising the salaries of supreme court justices to \$10,000 and appellate court justices to \$9,000 a year, a repeal of criminal syndicalism, etc., etc., etc.

The entire list would require more than one summer day to read cursorily. How many will read it? How many will not read it?

Those who do not read and correctly interpret the effect of each measure on the ballot are taking desperate chances when they vote "Yes" for measures they do not understand. It is such careless voting that makes dangerous legislation possible. The plan adopted by prudent people is to vote "No" on every measure that they do not thoroughly understand and believe to be essential to the progress of the commonwealth.

A duty devolves upon those who do understand certain measures and recognize their dangerous character to inform as many voters as possible. This brings the November ballot and the issues of the campaign squarely before each of us. What are you doing to defeat anti-health and anti-medical legislation?

A special article by Dr. Alvarez on that important question will be found in this issue of the JOURNAL. All should read and follow the suggestions given in that article. If many voters during this campaign are deceived by specious and fallacious statements and misleading literature on medical and health subjects, whose fault will it be?

You have the right, you have the facts, you have the vast majority on your side. If you permit a small but active minority to pass pernicious legislation because of your inaction and indifference, you cannot escape your full share of the blame and the evil consequences.

## HEALTH INSURANCE AND PHYSICIANS

Under the title above, there has been issued a pamphlet written by Dr. Frederick R. Green, secretary of the Council on Health and Public Instruction of the American Medical Association, which embodies the best formulation of principles on this topic which we have yet seen. It should be in the hands of every physician and can be obtained from the headquarters of the American Medical Association. Aside from endorsing its conclusions, however, it is necessary to express sharp disagreement with the major premise with which the article opens. Dr. Green states: "Social insurance is essentially an economic and not a medical question." And again, "A discussion of the details of medical service bears the same relation to the plan in general that the discussion of the interior decoration of a house bears to the question of the erection of the house itself." In these two statements are embodied a position which we, in California, do not accept and which we have constantly opposed.

We believe it self-evident that adequate medical service, in the sense which has many times been defined in these columns, is the right and due of



every person in this country. We believe it is also self-evident that such service cannot be provided unless some one pays the bill. Good medical service costs money and must be paid for. One expedient suggested to make such service available for the large class of population which needs it most, is compulsory social insurance. It is a poor crutch and better are in sight, to be sure. But the purpose of social insurance is strictly and avowedly medical. If it does not provide for satisfactory payment for satisfactory medical service, it will defeat its own avowed ends. If this be true, and we are convinced that it is true, then the details of securing satisfactory and adequate medical service under any social insurance plan is not only of the utmost importance but is absolutely essential and vital for the success of the entire scheme. Like so many other present-day institutions, if the factor of adequate medical service is omitted, what, in the name of reason, is left?

It may be argued that, regardless of payment for value received, some such plan might be conceivably thrust down the throat of the medical profession. If such a misfortune should occur, the insured would pay in their receipt of inadequate medical service. Here, as in all questions which pertain primarily to the public health, the interests of the doctor are literally and strictly the interests of the public. Social insurance, like industrial medicine, is ethically and primarily a public health question, and only from the same standpoints, secondarily an economic question. On the front of Dr. Green's pamphlet appear the pregnant words of Gladstone, "In the health of the people lies the wealth of the nation." Their truth is being demonstrated more and more. Health first, and sound economics will follow. Health laws lie deeper than economic laws, as witness the Panama canal. It is to assume that leadership in this broad field of health promotion for which he is specifically trained, that the physician must constantly bestir himself and ally himself with an educated and alert public.

Disagreement with the beginning argument of Dr. Green does not in any wise decrease our thorough accord with his conclusions nor does it lessen our hearty endorsement of his statement of the five alternatives besides compulsory health insurance, all better adapted to meet the problem that compulsory health insurance seeks imperfectly to meet. These alternatives are as follows:

1. Provision of a living and adequate wage.
2. Prevention of preventible disease by public health agencies, thus lightening the individual burden of sickness.
3. Development of individual thrift and savings to provide for a rainy day.
4. Development of voluntary industrial insurance in groups by employers and employees. This is a practical and efficient and coming method.
5. Development of voluntary benefit associations.

Dr. Green's article is worthy the careful perusal of every physician. It will provide argu-

ment and data well adapted to drive out ignorance and inculcate a sane attitude toward the necessary part the medical profession must play in making adequate medical service available for all the people.

#### **"CHRISTIAN SCIENCE HEALERS EXEMPT FROM LICENSE TAX"**

"Christian Science practitioners are exempt from all taxation in the list of professions included in the new license ordinance that went into effect July 1. A decision to this effect was rendered last evening by City Attorney George Lull, who states that the term 'drugless practitioner' does not refer to a Christian Science practitioner," says the San Francisco Chronicle under date of July 16. Lull says in rendering his decision:

"In view of the indefiniteness of the term 'drugless practitioner,' and the fact that the term 'Christian Science practitioner' is a well-known designation of a school, and the decision of the committee not to include Christian Science practitioners upon whom a license tax should be imposed, I advise you that no license tax can be collected from Christian Science practitioners."

It would seem to an innocent bystander who is accustomed to weighing things without any reference to election returns, that regardless of the method of treatment or the alleged curative agency employed, that anyone who is permitted by law to treat the sick or who professes to cure the sick under any system, and charges for it, should not be given special favors when others are taxed. Commercial healing as a money-making occupation, business or profession does not seem to deserve any discrimination in its favor simply because it may be associated with religion in one guise or another. The text of the new license ordinance does not seem to be concerned with the school, sect or system of healing, but the peculiar interpretation of this new law seems to be that where one is engaged in healing for hire, whether the patient is present or absent, and couples with his charges a certain religious belief, that then he is entitled to exemption from all taxation.

It will thus be seen that the class of practitioners which is placed above the application of this new law, by the city administration, is practically given a special franchise, without any license tax, to exercise its form of healing commercially.

#### **THE EDDIAN FRATRICIDAL WAR**

It is a rare week that some suit is not filed by some faction of the Eddian Science Church against another hostile faction. Some of the very sincere and devout men and women who thought to find in Eddian science peace on earth and good will among men, together with a balm for all their ills, spiritual and physical, are awakening to find their dream rudely shattered.

They find that instead of "ever-present harmony and peace", "mortal belief is unmasking and exposing its evil claims." The trustees of the Christian Science Publishing Society claim the

supremacy and the directors of the Christian Science Mother Church are endeavoring to overcome "this subtle belief." This human discord is deplored by the pacific and applauded by the militant members of the church. Discord is producing disintegration, and the membership of the Christian Science Church has fallen away to such an extent that the Church refused to furnish the Bureau of the Census any statistics as to its dwindling membership.

Spokesmen of great authority in Eddian Circles state that "the error of division is due to ecclesiastical despotism," but that this moral chemicalization "will inure only to the destruction of error and the rapidly approaching dissolution of the ecclesiastical organization."

The "Christian Scientist" of New Orleans, edited by Stephen H. Alison and Alice Boyd, makes this pertinent comment on the Eddian fratricidal war:

"The fight for freedom of thought over ecclesiastical domination which has so completely shaken up the organization and resulted in an attempted boycott of the *authorized* publications, not the *unauthorized*, but all the publications issued by the Publishing Society, together with the resignation of the editors of the 'Journal' and the 'Sentinel,' indicate almost desperation on the part of those siding with the directors, over the adverse legal decision recently rendered, but the appointment by the Publishing Society of Frederick Dixon as editor of the 'Journal' and 'Sentinel' will enable him to bring to these periodicals also the same journalistic ability which has distinguished his editorship of the 'Christian Science Monitor,' which as an international newspaper has done more to promote the prestige of Christian Science than have all the other periodicals together since the passing of the Founder.

"The error of division due to ecclesiastical despotism, the evils of which Mr. Dixon has so clearly pointed out, does not affect 'the heart and soul of Christian Science' even if litigation seems to indicate that the material organization, or 'the letter is but the dead body of Science,—pulseless, cold, inanimate.'"

#### POLITICS AND HEALTH

It is unnecessary to state to those readers of the JOURNAL who are members of the State Medical Society that this JOURNAL is non-partisan and non-political and that it never appraises men or measures from the partisan standpoint but from the standpoint of public welfare.

An opportunity was given to the two great political parties, both of which claim to be devoted to the public welfare, to pronounce upon the subject of Public Health, which is the most vital question to the progress of the people individually and collectively.

The Republican party held its convention first this year and adopted a set of principles on which it seeks the endorsement of the voters. The platform of the Republican party on which it appeals to the people of the United States to entrust it with power at the coming November election contains the following health plank:

"A thorough system of physical education for all children up to the age of 19, including adequate health supervision and instruction, would remedy conditions revealed by the draft and would add to the economic and industrial strength of the Nation. National leadership and stimulation will be necessary to induce the states to adopt a wise system of physical training.

"The public health activities of the Federal Government are scattered through numerous departments and bureaus, resulting in inefficiency, duplication and extravagance.

"We advocate a great centralization of the Federal functions, and again urge the better co-ordination of the work of the Federal, state and local health agencies."

We regret that the Democratic party at its National Convention in San Francisco failed to recognize the obligation of a great party to foster and further public health work. Its singular silence upon this important subject becomes all the more remarkable and reprehensible, when one reads the full text of the Democratic platform and find its proponents pointing with partisan pride to achievements that were dependent upon scientific health service.

The health of our soldiers was of primary importance to the Government during the war and their care was entrusted to competent hands. The vigorous health of our troops was a decisive factor during the short destructive days of war, and a constructive reconstruction demands that the health of the troops returned to civil life, as well as all other civilians, be properly protected. The ounce of prevention should be applied during the days of peace as adequately as during the days of war. The physical defects disclosed by the medical examining boards kept weak links out of the far flung battle line.

The doctors neither request nor require eulogies for their devotion to duty. In the army camps, in the base hospitals, in the front line of trenches, on land and sea, they were found defending the nation's defenders from the invisible foes of disease, binding up the wounds of the fallen and restoring the sick to health and vigor.

General Pershing was in a position to see and appreciate the value and work of the doctors. He says: "Many of them shared with the line troops the hardships of campaign conditions, and have sustained casualties and privations with fortitude that is beyond praise. The pro rata death rate of the medical officers exceeded that of engineers and aviators."

The influence of the doctors who served in the war upon the health of our present and future generations is immeasurable. They have sent back into civil life four million young men,—the very flower of our chivalry with a more intelligent interest in health conservation, with a better understanding of the value of a strong healthy mind in a sound body and an appreciation of the necessity of adequate health regulations.

The health work of the doctors during times of peace has been no less renowned than during times of war. One of the best by-products of the war is the awakening of the people to the im-



portance of health work. The importance of this work and the wisdom of a strong statement upon it coupled with a positive platform pledge were clearly placed before Senator Carter Glass, the chairman of the Democratic Platform and Resolutions Committee, and his fellow committee members.

The fact that the health service of the United States and of the various states is and should always continue to be non-political has not in the past deterred both great political parties from taking definite positions for its advancement. Although more deaths result annually from the lack of maternal care than the total casualties of the war, the entire expenditure of the Government during the past year appropriated for the work of the only bureaus relating to women and children was less than five and one-half thousandths of one per cent!

### Editorial Comment

In view of the specious claims of "chiropractics," and of their campaign of misrepresentation in California, there is published on another page of this issue an article entitled "The Fountain Head of Chiropractics," taken from the *Journal of the American Medical Association* for July 3, 1920. Physicians will here find information worthy of wide dissemination among their patients and friends.

Do not fail to read every word of Dr. Alvarez' special article in this issue. It will provide you with ammunition, and being provided, do not fail to shoot and to shoot straight. The time is past when the medical profession, charged with the protection of the health of the public, can afford to ignore or leave unmolested the lying propaganda and malicious commercialism of half-baked, half-educated, half-witted fanatics of various cults and sects whose aims would result in serious detriment to the public health. State the facts without fear or favor. It is now the open season for all faddists who are a public nuisance and a danger to the people's health. Go after them.

The progress made by Ohio in systematizing and advancing its general social program has been attributed largely to the Ohio Council of Social Agencies. This organization was formed in July, 1919, as a result of a conference arranged by Governor James M. Cox shortly after the signing of the armistice. The public departments had been gathering for many years a vast amount of social information. Recently, the private agencies have gathered more, but until the Council was organized, this information was unrelated, and as in other states, little information was exchanged between departments. The Ohio Council has been able to pool this information through a special sub-committee known as the County Case Committee. This committee studies the needs of the state, county by county, and makes recommendations to the Council. In

cases where not enough knowledge of a community has been compiled, and where the city or county invites it, the Council stands ready to make an extensive social survey.

According to the Social Hygiene Bulletin the new marriage law passed by the Parliament of Sweden is perhaps the most progressive in the world. Its leading principle is "to make the position of husband and wife equal; their rights and duties mutual in every respect, and to make them both responsible for home and family." Under this new act the guardianship of the husband is totally abolished. A wife may, like her husband, choose her own domicile, and is entitled to take her working utensils and part of the furniture. She may practice any trade or profession without her husband's consent and has all liberty of contract even with her husband." Regulations for divorce are enunciated in the law as follows:

If both want to dissolve their marriage, they have only to send in to the proper authority an application for separation, which is then granted for one year without any further investigation. When the year is out each of the parties may urge full divorce and is not obliged to give any grounds for his or her demand. Divorce is then immediately granted. If they or one of them want to get a divorce without going through a year of separation, or if only one party desires separation against the wish of the other, reasons must be given. Such reasons are mainly infidelity, desertion, debauchery and drunkenness, neglect of family duties, and knowingly exposing the other party to contagion through venereal disease.

### Special Articles

#### WHAT ARE YOU DOING TO DEFEAT ANTI-HEALTH AND ANTI-MEDICAL LEGISLATION?

By WALTER C. ALVAREZ, M. D., San Francisco.

From present indications there are going to be four measures on the ballot in November which will strike directly at the public health. One aims to stop all animal experimentation in California; another to abolish compulsory vaccination; another to establish a special licensing board for chiropractors, and the other is a referendum on a law which excludes osteopaths from those who are entitled to have and use hypodermic syringes. All of these measures are bad and should be defeated. They will be defeated only if the physicians who know the facts will educate the public in the next three months. If the man in the street has no reason to doubt that the antivivisection measure is designed purely to stop the wanton torture of dogs by vicious medical students; if he thinks that small-pox is a thing of the past and that vaccination is dangerous and useless; if he thinks that osteopaths and chiropractors are noble men who are being denied a square deal by a jealous medical profession, why should he not vote for these measures? The physician is one of the few men in the community who can put him right, and who can combat the

campaign of misinformation which will be waged in the next few months. Some may answer, "What is the use? We are too busy and too tired at the end of our day's work. Let the health authorities and the University professors do it. We are naturally against these measures, but their passage will not affect us very much—it is the public who will suffer." Quite right about the public, but wait; let the enemies of scientific medicine work unchecked in the community a little longer and the doctors will wake some day to find that they can get no more antitoxins, no anti-rabic vaccine; no standardized drugs; no Wassermann reports; no reports on guinea pig or mouse inoculations, etc. They will find themselves without government help in the fight against epidemics, and the big University and public health laboratories which have always helped them with their difficult problems will be closed. Moreover, with the lowering of the bars, California will become the Mecca for every variety of quack in America. They will swarm into every town in the state; they will advertise widely and will demand and get most of the positions on boards of health and in county hospitals which are within reach of their political friends.

If the medical profession of California do not like this picture they should go to work now. What is the first thing to do? Join the League.

First: If you have not joined the League for the Conservation of Public Health do so. If you are a member, support it loyally; send in what money you can spare; send in any information from your district which may be of help; send in any helpful ideas or arguments which occur to you.<sup>1</sup> Why do I insist on this point? For several reasons: in the first place we are to wage war against ignorance, and we learned in 1918 that success in war comes only through unified control. A unified profession back of the League can do what several thousand men working at cross purposes cannot do. Secondly, most of us know little beside our medicine. We have paid so little attention to the mechanism of education, advertising, law and politics that when we get into a fight like this we must go to specialists for help and advice. Such specialists are employed by the League and their advice is free for the asking.

Next: Keep informed as to what is going on; read the editorials in this JOURNAL; learn what our opponents are claiming about these bills and refresh your minds with some of the statistics and illustrations which you will need when called upon to meet their arguments. As old Sir Thomas Browne says in his *Religio Medici*, "Every man is not a proper Champion for Truth, nor fit to take up the Gauntlet in the Cause for Verity: many, from the ignorance of these Maxims, and an inconsiderable Zeal unto Truth have too rashly charged the Troops of Error and remain as Trophies unto the enemies of Truth." Which, being interpreted, means that if when arguing with laymen we use long technical words which they do not understand; if we choose our illustrations poorly; if we talk about rare diseases which bring up no responses in their minds; if

we fritter away time in debate on unimportant points, and if we have nothing but vague and general statements with which to oppose the glibly quoted "facts" of the "antis," we are likely to be worsted by some ignorant but enthusiastic woman whose knowledge of experimental medicine is based entirely on the reading of one antivivisection pamphlet. If it pays large manufacturing concerns to spend thousands of dollars on the wording of one advertisement, it will pay us to spend some time occasionally on an analysis of the educative problems before us.

#### EDUCATE THE PUBLIC

I say "educative" because it seems to me that the only way in which to safeguard scientific medicine; to get the money needed to carry on expensive research work, and to extend the benefits of such research promptly to the public is to educate that public. Let them know what is going on; let them know what has been done for them in the past, and let them see how many of the things that remain to be done could be accomplished if we only had more workers, more money and above all, more co-operation from the people whom we would like to help.

#### HOW EPIDEMICS ARE CONTROLLED

Take the matter of the state and national control of epidemics. It goes on silently. Few even of the physicians know about it. In Sacramento and Washington men sit receiving reports day by day. They chart these data and watch the lines just as an engineer watches his steam gages. Let us say that the smallpox line for the San Joaquin Valley takes a sudden jump. Out go men to investigate and vaccinate, and down goes the line. A man kills a squirrel in the Oakland hills. He gets bubonic plague from it and dies. During the next few days twelve contacts—friends, nurses and physicians—get the disease in the pneumonic, or most contagious form, and eleven die. Public health authorities rush in and the epidemic is stopped. There we had a terrible menace to the people of California; it was met and conquered, and yet those who were saved did not know even that they had been in danger. The papers did not headline it because it might have hurt business.

#### VIGILANCE OF HEALTH AUTHORITIES APPRECIATED

In Pittsburg, California, the chlorinating plant of the water works had to shut down for one day. Instead of notifying the health authorities the engineer went ahead and pumped water directly from the river. As a result there are now over 100 people down with typhoid fever in a town of 5000 inhabitants. Before that happened, how many of the people in Pittsburg knew what the vigilance of the public health authorities meant to them? Probably not one in a hundred ever bothered his head as to the source of his drinking water.

Naturally, then, when a senator or supervisor who doesn't believe in disease attempts to close a hygienic laboratory or tries to put in an ignorant layman as director, we hear no protest from the people. Why should they object? They do not know what the laboratory has ever done for them; for all they know the director loafs on an



easy job. They have not seen any epidemics, so what was there to do? I maintain that if we leave the public in that state of ignorance and peace of mind we must expect them to act just as many of them do towards public health measures. Given the same outlook and lack of information we would act in the same way. Remember the difficulties our Government had at the beginning of the great war. They found that they had to educate the people out of apathy; they had to bring out clearly the menace of Prussianism; they had to show what was being done. After that, it was the pacifist, the conscientious objector and the Germanophile who had a hard road to travel. Similarly, if we could only show the mothers of California what the antivivisectionists are trying to do for their children they would soon make the advocates of that vicious measure feel as much at home as a soviet organizer at an American Legion reunion.

#### BOOST BETTER HEALTH

Hence it is that we must start our campaign of education. Let us all help in distributing and boosting "Better Health." A few may not yet know that this is an epoch-making little health magazine published for laymen. It has a splendid mission and a splendid opportunity. The average educated layman would be glad to know more about the advances being made in medical science, and it is a shame that too often he has been offered only the garbled stuff which is found in Sunday supplements. The day has come when experts in the various fields of medicine will, from time to time, have to take it upon themselves as a civic duty to write popular articles, giving in an interesting way and in simple language insights into the big advances which are taking place in their several specialties. Too long have we held to our horror of publicity and our dread of the appearance of advertising. I rememehr hearing physicians speak bitterly about the Mayos because they let a popular magazine write up their clinic. Why shouldn't they? Why not seize upon this desire of the public to know something about a remarkable institution and use it to advertise widely the difference between quackery and scientific medicine? It would help all of us who are fighting for higher standards of education and practice. There is any amount of good "news" in modern medicine (besides interstitial glands and turtle bacilli) and it is our own fault if we fail to use it properly. If petty jealousy play any part in refusing it an outlet we will have ourselves to thank when we see quack medicine monopolizing the newspaper space.

#### TALK TO PATIENTS

Not all of us have time to write but most of us can talk. We can talk to our patients, especially to those who are influential in the community and who can help in this fight. Some of them may have little children whose lives we have saved by modern medicine and surgery. We can appeal to them as no one else can. We must talk to ministers, teachers, editors, farmers and stockmen. We must enlist our wives, leaders in women's clubs and nurses, all of whom must

be furnished with the necessary data to combat misinformation. Later on those who can speak effectively in public will be needed to present our side before civic improvement clubs and other bodies who discuss these measures.

It is the purpose of this article to present a short outline of the arguments which seem now to be the most helpful in educating laymen on these measures. Other arguments will be prepared later by a committee, and will be available for distribution to those who can use them effectively, and who are looking for reliable information.

#### ANTIVIVISECTION

I wish first to take up the matter of antivivisection, as that strikes at the very heart of scientific and preventive medicine. Many of the people who signed the petition did so under the impression that this law is the best means of protecting their pet dogs from theft and wanton torture at the hands of medical students. If that were all, most of us would sign it too; but let us see how it reads: It will be unlawful to dissect, vivisect, torture or *experiment upon* (the italics are mine) any living animal. Moreover, "The words dissect, vivisect and torture as used herein are hereby *defined to mean* \* \* \* the experimentation upon any living human being or any living animal for the purpose of experimental physiological or experimental pathological investigations." Apparently Webster's Dictionary will have to be amended slightly hereafter. I need hardly point out that this wording would enable the Antivivisection Society to close most of the laboratories in the medical schools, all the hygienic, public health and veterinary laboratories, the serum institutes and the Wassermann laboratories. They could stop all preventive inoculations of animals, the production of certified milk, the standardization of drugs, and the bacteriological safeguarding of canned and other foods.

The very inclusiveness of this measure unfortunately makes many physicians apathetic about it. They feel that the farmer would insist on getting protective sera for his animals; men bitten by mad dogs would demand the Pasteur treatment; orphan asylums would have to have diphtheria antitoxin and so on. I believe, however, that some of these men said a while ago that prohibition would never be enforced. Some features of this law might have to be dead letters but not all of them would be. Are the physicians of this state going to stand by and see a few fanatical women assume unto themselves the power of deciding which laboratories are to close and which to stay open? Are we going meekly to hand over the leaders of our profession to these women for a course of malicious persecution and espionage? No.

We must first strip the camouflage from this bill. Let people see clearly what it plans to do. If they want to protect their pet dogs without at the same time tying the hands of health officers and physicians, let them see to it that the responsible laboratories can get animals from the pounds. In most large cities these pounds are run by the Society for the Prevention of Cruelty

to Animals which refuses to let the laboratories have dogs or cats for any purpose. If only for their own protection from annoyance and notoriety the colleges now raise many of their animals and are careful to buy dogs only from dealers well known to them. Hence the danger of using pets is very small.

#### CHILDREN OR GUINEA PIGS?

The people must be made to see clearly that if scientific medicine is to advance; if we are to conquer the suffering that yet remains in this world, we must have animal experimentation. *Let them choose definitely between the lives of little children and the lives and comfort of a few guinea pigs.* The antivivisectionists, when confronted by this alternative, often state frankly that *in their hearts the guinea pig comes first, but the average mother will choose the children.*

The antivivisectionists often say they have nothing against the fine old family doctor and would not hamper him for the world. They try to distinguish between him and the research worker whom they abhor. No such distinction can be made. We must make it clear that when they strike at the research worker they strike at the general practitioner who gladly avails himself of every new fact and remedy that comes through animal experimentation. They strike also at the sick in hospitals and in our anterooms. Many of these sufferers now stand condemned to death from cancer, pernicious anemia and other poorly understood diseases, and their only hope of reprieve lies in the world's research laboratories. Who but an antivivisectionist would be so cruel as to slam the door of hope in their faces?

#### CORRECT FALSE "FACTS"

The voters should have it impressed upon them that whereas the antivivisectionists talk always of *operations on dogs*, the statistics show clearly that about 95 per cent. of the experiments on animals are inoculations, involving the prick of a hypodermic needle. Most of this work is done on guinea pigs, rabbits and rats. In about 3 per cent. of the remaining operations the animals are anesthetized at the beginning of the experiment and killed by an overdose of chloroform at the end.

Our opponents make the absurd claim that morphine (in massive doses), ether and chloroform will not produce anesthesia in animals. They also deny that anesthetics are used. Let them explain why any man in his senses would try to do an operation, using costly and fragile apparatus, on a struggling, howling animal when with a little ether he could keep that animal quiet and insensible. The "Antis" inveigh against the terrible cruelty that is going on in the laboratories. If they could ever produce any evidence of this they could easily have the workers arrested and jailed under the present laws. I maintain that if these fanatics believed only one-fourth of the statements they make about certain research workers they would have them arrested and tried in court. If they believed the affidavits which they obtain from discharged animal keepers they

would use these men to testify before a judge and jury.

#### DOORS OF LABORATORIES OPEN

They claim that it is impossible to get evidence because the doors are barred. This is not true. The doors are open; messenger boys, expressmen and others come and go, and wander through the rooms until they find the persons they want. At the Hooper Foundation in San Francisco, the Secretary of the Society for the Prevention of Cruelty to Animals comes in unannounced from time to time and is always made welcome. The officers of the Antivivisection Society here and in the East have a standing invitation to do the same thing, but instead of availing themselves of it they continue their clamor about the locked door. To my mind a convincing fact that the horrors depicted by antivivisectionists are purely imaginary as far as California is concerned, is that much of the work is being done here by fine young women, many of them University graduates working for M. S. or Ph. D. degrees. I overheard one of them one day protesting to the animal tender simply because she thought he was carrying a dog in an uncomfortable position.

The Royal Commission on Vivisection, made up mainly of men very sympathetic towards the cause of the "Antis," took evidence in England for eighteen months and reported as follows: "We desire to state that the harrowing descriptions and illustrations of operations inflicted on animals, which are freely circulated by post, advertisement or otherwise are in many cases calculated to mislead the public." As Lord Cromer said, there was not a single case of extreme and unnecessary cruelty brought forward by the Antivivisection Society that did not "hopelessly break down under cross-examination."

#### "ANTIS" QUOTE OLD STUFF

If the "Antis" could not quote from Magendie, Claude Bernard and others who worked in pre-anesthesia days they would be in a bad way.

When the "Anti" has exhausted his arguments on cruelty he starts belittling the results of animal experimentation; he denies that it has ever done anything for humanity. When cornered by such impartial things as Government statistics, he claims that the tremendous reduction in the mortality of typhoid fever, diphtheria, meningitis, rabies, cholera, etc., etc., is due to "sanitation."

#### WHAT IS SANITATION?

The poor fellow seems almost incapable of understanding that sanitation is simply the practical application of the knowledge gained in the laboratories. Thus, the fight against bubonic plague could be won only when it was shown that the cause of the disease is a germ which is carried from house to house by the rat flea. No amount of ordinary cleanliness, proper disposal of garbage and sewage, sweeping of streets, protection of water supply, quarantine and isolation of the sick will avail against an epidemic if the exact cause and mode of transmission is not known. This was well shown in Cuba: As Reed says "Probably in no city in the world



have such unremitting sanitary efforts been put forth as in the city of Habana since our occupation in January, 1899. Yet in spite of unremitting efforts to keep the city clean, Habana has experienced a more serious epidemic of yellow fever . . . than it has had during the preceding 20 years." The complete conquest of that disease in the following year was due solely to the experimental proof that it was the stegomyia mosquito, and that alone that they had to fight.

#### WHAT HAS ANIMAL EXPERIMENTATION DONE FOR HUMANITY?

When asked what animal experimentation has done for humanity, one is confronted with so much to choose from that it is hard to know what to do. It is perhaps best to quote those statistics, the accuracy of which our opponents cannot question. These can be found in many of the official reports to the U. S. Government. For instance, a layman, Colonel Ayres, in reporting to the Secretary of War, in 1919, points out that "This is the first war in which the United States has been engaged that showed a lower death rate from disease than from battle."

#### "NUMBER OF DEATHS PER YEAR PER 1,000 TROOPS"

	Disease	Battle
Mexican War, 1846-1848.....	110	15
Civil War, 1861-1865.....	65	33
Spanish War, 1898.....	26	5
Present war to Nov. 11, 1918....	19	53

He rightly ascribes most of this remarkable low disease death rate to the high efficiency of the Medical Corps and to "*the compulsory vaccination of the entire army against typhoid fever.*"

In the Spanish-American War every fifth soldier had typhoid fever, and that disease alone caused 85 per cent. of the total number of deaths. During the war with Germany there were very few cases, and many of these occurred in the first week after induction into camp, before the preventive inoculation could take effect.

In the Civil War, 45 per cent. of the soldiers with infected wounds died. In the war with Germany only 7 per cent. of the wounded died and 85 per cent. were returned to duty.

In the Civil War, out of 505 cases of lockjaw, 451, or 89 per cent., died. During the war with Germany, lockjaw appeared suddenly in great virulence and if left unchecked would have caused the death of almost every severely wounded man in Flanders. Protective inoculation controlled it promptly and completely, much to the chagrin of the British antivivisectionists who fought the measure bitterly.

In 1860-64 the mortality in the Maternité in Paris was 12.4 per cent., that is, every eighth mother died. Today the mortality in similar institutions is sometimes as low as 0.08 per cent., that is, 8 in 10,000 die.

The Pasteur treatment has diminished the mortality of hydrophobia in man from 13 per cent. to a small fraction of one per cent.

The death rate from diphtheria in 19 big cities has fallen from 79.9 per 100,000 in 1894, the year when antitoxin was discovered, to 19 per 100,000 in 1905.

The mortality from hog cholera has been reduced by the use of serum from 14.4 per cent. in 1897 to 4.2 per cent. in 1918. This saves the farmers about \$170,000,000 a year. The domestic animals have profited so much from medical research that, as Dr. Flexner says, if they had the power of speech "they might well ask to be saved from those who appear to be their friends."<sup>4</sup>

#### OSTEOPATHS AND CHIROPRACTORS

Before attempting to argue with laymen on this subject we must stop for a minute to analyze the situation.<sup>5</sup> The task before us is so difficult that if we waste any time; if we argue points which might well be ignored or admitted, and if we fail to keep the main issues clear, we are bound to be misunderstood. Let us recognize that sects have always been with us and probably always will be until human nature changes. Some eccentric fellow gets an "inspiration," every problem in medicine suddenly becomes clear to him, and in a few years we find thousands flocking to his disciples. Another few years and the enthusiasm is gone; the disciples get to practicing regular medicine as best they can; the sect is forgotten and new ones are in its place. Who today remembers the Thomsonians, the Botanists or Perkin's Metallists? Yet in their day they were supported enthusiastically by lords and dukes and other presumably intelligent members of society. We must see that these popular delusions are not the product purely of perversity and ignorance, but result from powerful causes deeply rooted in human nature. Remember that for thousands of years medicine meant mysticism, speculation and dogma, and that it is but half a century since the spirit of scientific research entered fully into our profession. Beliefs as old as the pyramids are not uprooted in one generation or in two; and the miracle really is that there are as many well informed laymen as there are today. Hence it is that we must be patient; we must recognize that the human mind when sick will often turn from the honest doubts and admitted limitations of the scientific man to take refuge in the "omniscience" and assurance of the quack. As long as human nature demands this sort of thing it will undoubtedly be supplied.

Let us admit freely that many with nervous disorders will be comforted and cured; let us admit that many of the practitioners are kindly and well intentioned men and women. Make it clear that our objections to them are based not on any personal animus but on the inadequacy of their educational facilities.<sup>6</sup>

#### EDUCATIONAL QUALIFICATIONS ESSENTIAL

Stripped of all nonessentials the issue is simply this: *Is it or is it not a wise thing for a commonwealth to see to it that those who come forward*

*to treat the sick have enough knowledge of medicine to protect the people from gross malpractice?* Should they not have had that training which would enable them to tell smallpox from chickenpox, diphtheria from tonsillitis or tuberculosis from a bad cold? If this principle is sound, let us have a strong law; if it is not sound, let us have none at all. A weak law serves simply to annoy the able physicians who come to our state while it lets the quacks stream in unmolested.

The answer of the osteopath is that he doesn't care for serious cases, that he does not take them "when he knows what he is getting into." Yes, but how is a man who has had no undergraduate contact with the sick in big clinics and teaching hospitals, and who has tried to cram into a few months the training which our students find hard to assimilate in seven years going to tell what he is getting into? How is he to differentiate between the people whom he can help and those whose lives will be forfeited if he wastes time on massage and manipulation? *He cannot do it*, and that is our objection to him. Moreover, his objection to the medical practice act is simply that he does not know enough to answer the examination questions. Many try year after year and fail. If he could answer these questions like the rest of us do he would not be spending his time and money every year in efforts to get easier ones.

#### SOME CHIROPRACTORS BARRED BY IGNORANCE

The chiropractor complains that he is barred from California, but it is only because of his ignorance. The osteopaths have secured an easy drugless practitioner examination which the chiropractor has the privilege of taking, but it apparently is still too hard for some.

It is the people's fight and not the doctors' fight when ignorant men try to break down the law. Why should the doctors be expected to make the fight, and why should they be misrepresented when they do ask legislators to attend to their sworn duty? It is the public who suffer, and not the doctors.

#### BLUE SKY "DOCTORS"

Perhaps the business man would understand the situation better if we were to compare the medical practice act with the "Blue sky law" which is designed to protect inexperienced investors. The man with a mythical oil well pleads that the law is unfair, that it is designed by bankers to protect their interests. The banker answers that while it does help him a bit by leaving more money for legitimate enterprises, he could get along nicely without it because he knows what to do with his money; it is the poor widow with an insurance settlement to invest who gets robbed if the law is weakened. If the man who hasn't enough mental assets to show the Board of Medical Examiners is entitled to another board and an easier examination, why shouldn't the man who cannot show any financial assets to the Commissioner of Corporations have another commission appointed from amongst his friends: a commission which would be less particular? This is a

free country, and every man has a right to buy the kind of stock he thinks is good for him!

I have one other objection to a certain brand of cultist, and that is that they lack common honesty and manliness. They come up before the Board without proper credentials, and without the knowledge to pass the examination, and what do they do? They say that they are so different from an ordinary doctor that it is unfair to apply such standards to them. The individual cultist of this type claims he does not need a knowledge of diagnosis because every disease is treated the same; he abhors the knife and he detests drugs. A lenient public hearkens to his wail; they give him special privileges and an easy examination. Once in, then what does he do? He claims he is a physician in every sense of the word: he operates, he uses drugs, sera, X-rays, anything. Not content with that he goes to Sacramento and attempts to have the legislature grant him for twenty-five dollars the rights and privileges which the members of the medical profession spent thousands of dollars and years of time to get.

#### CULT APPEALS FOR SPECIAL FAVORS

The sectarian always appeals to the American passion for fair play by representing himself as the under dog in an intersect squabble. As long as the public looks at him in that light he will get sympathy and everything he asks for. If that public could only see through his duplicity they might transfer their sympathy from the man who crowds in at the ticket window to the boy who has stood in line for seven long years, who whines for no special favors, and who is not fish one day and fowl the next.

#### ANTIVACCINATION

One of the best sources of authentic information on this subject is Dr. Schamberg's pamphlet prepared for the American Medical Association.<sup>1</sup> The evidence which he presents is so overwhelming that it is inconceivable that any intelligent man or woman could look it over and not become an ardent advocate of vaccination. About the only answer to these statistics which the "anti" can make is that the enormous reduction in the incidence and mortality of smallpox since 1799 is due to "sanitation." Unfortunately for his argument, vaccination has been found just as effectual in the filthy villages of the Philippines, China, or Africa as it is in New York or San Francisco. The poor people of dirty India were so grateful to Jenner that they sent him a present of some \$35,000. Moreover, smallpox is as contagious as measles or whooping cough and, like them, is transmitted by personal contact. Before Jenner's discovery almost every child had to have it just as today he must have the measles. When we find in England that in the last 100 years the mortality from measles has fallen 9 per cent., from whooping cough 1 per cent., and from smallpox 72 per cent., it must be clear to any reasonable man that another factor has been at work. If we fail to employ that factor, it is equally certain that smallpox will again take its place along-



side of measles as the commonest disease of childhood.

Ask the antivaccinationist what he would do to safeguard the public, and he says he would isolate those with the disease. That is just as effectual as the locking of the barn door after the horse is stolen. By the time a man knows he has smallpox he has generally been in contact with a great many people, most of whom would take the disease if they were not protected in some way. Isolation had its most thorough tryout in Germany where it failed in spite of the rigid supervision of the Prussian police. They then tried universal vaccination and revaccination with the result that smallpox disappeared completely from Germany at a time when it was raging in poorly vaccinated Austria and Russia.

Confronted by these facts the "anti" argues about the dangers of vaccination. Show him then such statistics as those of the U. S. Sanitary authorities who performed this operation on 3,515,000 Filipinos without a single death or any serious post-vaccinal infection.

The alleged Public School Protective League thinks smallpox is a disease of the past—outlawed by modern sanitation. It thinks compulsory vaccination is advocated by the doctor simply because there is a little money in it. If these people could only see a smallpox epidemic occasionally or could live for a while in an unvaccinated country, we would have no more trouble with them. Many years ago, when practicing in Mexico, it interested me very much to see the mental change which came over visiting Americans who had previously been hostile to vaccination. When they saw that most of the Mexicans were pock-marked; when they saw the ghastly effects produced by the young women who try to fill the depressions in their skins with powder and paint, when they saw the many blind beggars, and when they found the man sitting next to them at the bull-fight speckled with fresh lesions, they hurried to be vaccinated. Some were decent enough to admit that their former stand had been due to the fact that they did not know what a terrible disease smallpox is. They did not know how near it was to our doors and that we would all be pock-marked too if it were not for vaccination.

The Public School Protective Leaguer says to us now: "You are afraid of smallpox but you are sure that you can protect yourselves. We are not afraid and we are willing to accept the consequences. Go ahead and get vaccinated but leave us alone. Let us have freedom in this land." At first sight this argument sounds reasonable. Some cold-blooded individuals have even suggested that the best way to cure the Public School Protective Leaguer of his folly would be to let him and his children go unvaccinated. The experience of the last 100 years has shown that when the percentage of unvaccinated in a community rises to a certain point there always comes a terrible epidemic of smallpox. This epidemic would kill off about 40 per cent. of the unvaccinated and would leave the rest pock-marked or blind in one eye. The

saddest thing is that the blow would fall most heavily on innocent children. We know also that many of those who have been vaccinated only once in childhood would take the disease (in a milder form) in such an epidemic. We see then that the individual has no more right to have smallpox than he has to burn down his city home. The state must object in both instances because the man cannot be sure of limiting the damage to himself and his family. Similarly, I cannot keep gasoline in my garage; I cannot drive on the left-hand side of the street and I cannot sell whisky or morphine. All of these prohibitions are infringements on my personal liberty, but I must put up with them because I might injure others if I were to have my way. For the same common weal the anti-vaccinationist and the Public School Protective Leaguer should be willing to deny himself and his children the pleasure of having smallpox.

#### References.

- (1) Address, Mr. Celestine J. Sullivan, Butler Building, San Francisco.
- (2) Yellow Fever, Senate Document No. 822, 1911, p. 108.
- (3) The War with Germany. U. S. Printing Office, Washington, 1919.
- (4) For more data get Keen's most interesting book "Animal Experimentation and Medical Progress," Houghton Mifflin Co., 1914. Send \$2.50 to your bookseller or to Mr. Stacey, The Emporium, San Francisco. Send to the A. M. A., 535 North Dearborn St., Chicago for Pamphlets in Defense of Medical Research. There are 24 of them, about 5 cents apiece. Keep them in your waiting room.
- (5) I have been greatly helped by re-reading Nichols' delightful article on Medical Sectarianism, Jour. A. M. A., 1913, lx, 331.
- (6) For articles showing the pitiful inferiority of the chiropractic colleges see: Duhigg: Jour. A. M. A., lxxv, Dec. 25, 1915, p. 2228.  
A Chiropractic Doctor Factory: Jour. A. M. A., 1917, lxxviii, Mar. 24, p. 932.  
Ibid., 1920, lxxv, p. 52.
- (7) Vaccination and its Relation to Animal Experimentation, J. F. Schamberg, 1911. American Medical Association, 535 North Dearborn Street, Chicago. 1 copy, 8c.; 5 copies, 35c.

### INFANT MORTALITY IN SAN FRANCISCO IN 1919.

By MISS HATTIE LEZYNSKY AND DR. ADELAIDE BROWN of the San Francisco Civic Center Public Health Committee.

The subject of infant mortality is the topic assigned me, and I am very fortunate to be able to present to you as the basis of this paper a discussion of the statistical work on infant mortality in San Francisco for the year 1919—done by Miss Hattie Lezynsky of the Public Health Committee of the San Francisco Civic Center, and Mrs. M. Blumlein and Mrs. R. Hoyle. This committee took for its subject a study of Infant Mortality based on race, type of obstetrical care, and five chief causes of infant death, as outlined by the Children's Bureau from the Federal census of 1910.

Study of Infant Mortality in the first two weeks of life under the headings:

1. Status of the family
  - Foreign father and mother
  - Midwives
2. Type of care
  - Physician
  - Hospital care
3. First child
  - Second child
  - Third and later

## STUDY OF INFANT MORTALITY IN SAN FRANCISCO FOR 1919.

Tables I.  
A, B & C.AGE DISTRIBUTION NUMERICAL AND PERCENTAGE  
Of Registered Deaths of Infants under 1 year of age.

## A. TOTAL INCLUDING STILL BORN.

	Stillborn	1st week 1 & 2	2nd week	3rd & 4th Weeks	2nd thru 12th month	Totals
No.	354	183 219	36	35	238	846
%	41.84	21.63 25.89	4.26	4.14	28.13	100%

## B. BORN ALIVE TO 1st YEAR OF AGE.

No.		183 219	36	35	238	492
%		37.2 44.51	7.3	7.11	48.37	99.99%

## C. BORN ALIVE TO 1st MONTH OF AGE.

No.		183 219	36	35		254
%		72.05 86.2	14.1	12.8		100%

TABLE II.  
SUMMARY IN ASCENDING PERCENTAGE OF DEATHS IN  
ASSEMBLY DISTRICTS.

Lowest	Stillborn	%	Born Alive	%	Total C	%	Remarks
1st 31st Dist.	3.7	22 Dist.	4.3	31 Dist	4.1		
2nd 22nd	4.2	31	4.8	22	4.3		
3rd 24th	5.1	32	4.9	27	5.4		Dist. 26 leads in Still-
4th 27th	5.7	27	5.3	32	5.7		born deaths
5th 25th	5.7	21	6.3	21	6.1		Dist. 33 leads in Born
							alive deaths & total
							Dist. 30 takes 2nd high-
							est pl. in Total
6th 21st	5.9	29	6.5	24	6.3		Dist. 31 has fewest still-
							born deaths
7th 32nd	6.8	26	6.9	25	6.5		Dist. 22 has fewest born
							alive & total deaths.
8th 23rd	7.1	25	7.1	23	7.3		
9th 28th	8.2	24	7.3	29	7.7		
(10th 30th	8.8	23	7.5	28	7.8		See Assembly Dist. Maps
(11th 29th	9.3	28	7.5	26	8.2		for boundaries of these
12th 33rd	9.6	30	7.7	30	8.2		districts.
Highest 13th 26th	9.9	33	12.6	33	11.4		

## STATISTICS.

4. Cause of the death
  - a. Congenital defects
  - b. Injuries at birth
  - c. Toxemia of the mother, flu and eclampsia
  - d. Syphilis
  - e. (Prematurely born  
} Debility of child
5. Infant Mortality second and third weeks,  
same headings.

6. Infant Mortality second to twelfth month.  
Gastro-intestinal, respiratory, other causes.

The co-operation of the Board of Health and the excellent leadership of Miss Lezynsky made this study possible.

In San Francisco in 1919:

Total births ..... 8754  
(Including still-births registered)



TABLE III.

PARENTAGE  
STILLBORN AND TO 1 MONTH OF AGE.

	Foreign	Father For.	Mother	Both For.	Total For.	Both Amer.	Undetermined	Total
A No.	26	16	122	164	172	18	354	
Still-born %	7.34	4.52	34.46	46.32	48.59	5.08	100	

## B. BORN ALIVE WITHIN 1st &amp; 2nd WEEKS OF AGE

No.	22	15	76	113	99	7	219
%	10.05	6.85	34.70	51.59	45.21	3.19	99.99

## C. BORN ALIVE WITHIN 3 &amp; 4 WEEKS OF AGE.

No.	3	5	11	19	15	1	35
				54.29	42.86		
%	8.57	14.29	31.43	1st Mo. 132 51.96	1st Mo. 114 44.86%	2.86	100

## D. TOTALS WITHIN 1 MONTH OF AGE

No.	51	36	209	296	286	26	608
	87						
%	8.39	5.92	34.37	48.67	47.04	4.28	99.99

TABLE IV

BIRTH ATTENDANCE  
OF STILLBORN AND INFANTS LESS THAN 1 MONTH OF AGE

Age	Stillborn	1st&2nd Week	3rd&4th Week	Totals	Stillborn	1st&2nd	3rd&4th	Totals
Physician	133	67	16	216	37.57	30.59	45.71	35.53
Midwife*	19	17	6	42	5.37	7.76	17.14	6.91
Hospital	180	121	11	312	50.84	55.25	31.43	51.31
None	3	1	0	4	0.85	0.47	0.00	0.66
Undetermined	19	13	2	34	5.37	5.93	5.71	5.59
Totals	354	219	35	608	100%	100%	99.99%	100%

\* Midwives are divided between Italian and Japanese.

Deaths within one year of age..... 846

(Including registered still-births)

Registered still-births ..... 354

Or an infant mortality of ..... 96.6

Infant mortality per 1000 *living* births 58.5

(Excluding still-births registered)

Note: The U. S. Infant Mortality is 100 per 1000 living births; New Zealand is 50 per 1000 living births.

The following tables deal only with the infant mortality of 58.5 per 1000 registered living births—or a total of 492 deaths.

Age distribution (the analysis of the still-born cases is made also).

Table I-B. Born alive to first year of age.

These tables present dramatically the death rate of the first week of life: 72% of 254 babies living less than a month, live less than a week; 51% of the babies born alive—and dying under one year of age—die in the first month, 44% in the first week, and over the other ten months the remainder, 56%, die. When you add to these figures the 354 still-born and *registered*, and 254 babies born alive but dying within one month of birth, we have 63% of the total deaths occurring in the first year of life due to *prenatal*, *immediate postnatal*, and *vitality conditions*. This waste of human life is appalling and must mean to the parents—more intelligent eugenics; to the social worker—better chance for prenatal care for all women; and to the nurse and physician—a more

TABLE V

NUMBER OF CHILD  
STILLBORN AND INFANTS LESS 1 MONTH OF AGE

Age	Numerical distribution				Percentages			
	Stillborn	1 & 2nd Week	3 & 4 Week	Totals	Stillborn	1 & 2nd Week	3 & 4 Week	Totals
1st	151	83	13	247	42.66	37.89	37.14	40.62
2nd	66	48	4	118	18.64	21.92	11.43	19.41
3rd	32	23	5	60	9.04	10.50	14.29	9.87
4th & Over	76	44	11	131	21.47	20.09	31.42	21.55
Undetermined	29	21	2	52	8.19	9.59	5.71	8.55
Totals	354	219	35	608	100%	99.99	99.99	100%

Remarks - The greatest no. of deaths occurred with the 1st child, 40%  
The next highest % was the 4th and later child, 21%

TABLE VI. 2 CAUSES OF DEATHS OF INFANTS BORN ALIVE

## B. WITHIN 1st &amp; 2nd WEEKS OF AGE.

I		II	III	IV	V	VI	VII	
Congenital Defects in infant		Injuries at birth	Toxemia in Mother	Syphilis	Prematurity and debility	Other Causes	Unknown Cause	Total
No.	66	16	10	3	90	33	1	219
%	30.14	7.30+	4.57-	1.37-	41.10-	15.07+	0.45+	100.00

## C. AGE 3rd &amp; 4th WEEKS

No.	6	0	0	4	9	16	0	35
%	17.14	0.00	0.00	11.43-	25.71	45.71	0.00	99.99-

## D. AGE 2 to 12 MONTHS

	Gastro-Intestinal	Respiratory	Other Causes	Unknown Causes	Total
No.	66	93	77	2	238
%	27.72 %	39.08 - %	32.35 %	0.84%	99.99 %

TABLE VI.

## CAUSES OF DEATH

## A. OF STILLBORN

I	II	III	IV	V	VI	VII	VIII	
Congenital defect in infant	Injuries at birth	Toxemia in Mother	Syphilis	Prematurity sometimes - age of foetus but without cause.	Full term no cause given	Stillborn no age or cause given	Other Causes	Totals
27	31	35	2	96	10	150	3 2 exposures 1 abortion	354
7.63	8.76	9.88 *Flu & Edumphia	0.56	27.12	2.82	42.38	0.84	99.99%



critical study of each failure which adds to this list.

*Localities of distribution* of still-born and infant mortality during first year of life by Assembly districts:

*Assembly district 33*—the crowded Italian quarter—furnishes highest mortality of infants born alive, and second of still-born, and highest of total deaths—11.4% of the 846 deaths under discussion; *Assembly district 26*, the highest still-born, and drops to the seventh place in the thirteen districts on infant mortality under one year, furnishing 6.9% of these. *Assembly district 30* takes second place in highest mortality of infants born alive, 7.7%, and fourth highest on still-born furnish 8.8% of these. Assembly districts 30 and 33 have large foreign population and crowded quarters. In the first lies the ghetto, and in the other the Italian and Chinese quarters. *The 31st*, a region of good homes and high-grade care, furnishes still-born 2.7%, and born alive but dying under one year 4.8%, while the 22nd district, a district of very moderate means but individual dwellings, has 4.2% of still-born and 4.3% of those born alive but dying in first year.

Table 3. *Parentage—of infant mortality.* Still-born shows slightly larger percentage in full American parentage. *Death one to fourth week*, 6% less deaths in full American parentage; while the total deaths up to one month, including still-born, run—48.67% foreign parentage, 47.04% American.

*Marriage—Table 3*—shows that racial intermarriage is practically nil. Of 140 cases noted, only two interracial are recorded, 1 Mexican-English, 1 Swede-Chinese. The foreign intermarriages are national and of 140 cases only 8% are international or interracial. The 10 international are all but one inter-European.

*Birth attendance of the infants* dying still-born or in first month of life. Table 4.

Thirty-five per cent. were attended by physician, 6.91% by midwife, 51.31% were attended in hospitals; 50% of the still-born had hospital care, and 50% of infants born alive but dying in first month have hospital care. Thus on the supposition being granted that hospital care presupposes good nursing and careful observation of the child born alive, we are again led to the conclusion that prenatal observation on the part of the patient and the physician is as yet inadequate to sufficiently protect human reproduction.

*Number of the child.* Table 5.

The effect on infant mortality of whether the child was a first or later child was then worked out:—1st child, 40.62%; 2nd child, 19.41%; 3rd child, 9.89%; 4th child is over—21.55%.

Table 6.

Under the heads as given by the Children's Bureau—

A. Of the still-born.

Note: 1. That 10% of the still-born cases were due to toxæmia, flu and eclampsia.

2. That injuries at birth give 9%.

3. That the 5th reason, prematurity and debility, is vague and probably many of these cases

better clasified would come under 4th—syphilis.

4. That 42% of the cases of still-born children no cause or age is given.

Table 6. B. Dying in 1st and 2nd week.

Note: 1. 30% due to congenital defects in infants.

2. 7% to injuries at birth, this added to 9% of still-born.

3. 5% follow toxæmia of mother, flu and eclampsia.

4. Prematurity and debility, 41.10%. Again the same comment in regard to syphilis is due.

A comment on 0.45% of unknown cause shows how much more accurate diagnosis of cause of death and contributing cause of death is made on a certificate of death belonging to a child who has lived than in the certificate signed for a still-born child.

Table 6. D. Babies dying between the 2nd and 12th month. Gastro-intestinal, 27%; respiratory (two flu epidemics), 39%; other causes, 32%; unknown causes, 2%.

These tables show clearly where the stress must be placed to reduce infant mortality.

1. The same insistence *must be given* by state and county and city departments of vital statistics on causes of death actual and contributing in still-born as is given to the child born alive.

2. In view of the fact that syphilis is the contributing or actual cause of many still-born and premature and delilitated infants, and in view of the fact that our government is asked to spend millions, our state its thousands, and at 24 centers in California municipal, state-subsidized clinics are seeking to control the ravages of syphilis, we would suggest that the birth certificates be studied and at least that parents should be educated to understand the causal relation between death of the unborn or new born and parental syphilis. With the state offering free Wassermann tests and our larger cities doing the same, there is no financial obstacle to this study.

3. Infant hygiene has taught the value of maternal feeding, clean milk, etc.—but do we teach either enough? A death rate of 28% of total 100% from gastro-intestinal diseases between 2 and 12 months against 0 where bottle babies have been carefully supervised, shows we are not doing enough, even on that line. The Children's Health Center of the Association of Collegiate Alumnae has never lost a gastro-intestinal case in all its foundling babies.

4. Again, injuries at birth causing 9% of 354 still-births and 7% of 219 children dying under 2 weeks of age with 50% of each group reported as being confined in hospitals, makes a medical mind stop and question. With all the help and convenience and technique controlling the risk of sepsis, are we tending to make surgical interference safer for the mother perhaps, but a jeopardy for the child because more readily undertaken by the obstetrician?

And in conclusion, is not the call to each one of us, social workers, public health nurses, heads of institutions, physicians with a social and public health viewpoint, to care more *intensively* for the

health of the race, its mothers and the babies, if we would have less sacrifice of the health and happiness of both? Better chance for prenatal care; literature put into the mother's hands; the public health nurse teaching her; the prenatal conference at every Children's Health Center, and prenatal clinics at every hospital which cares for confinement cases, can be easily carried out. A mother should look out on a world proud of what she is contributing to it, and anxious for perfect stock. And in recounting her experiences she should be able to say, "I had so many children and raised them." The City of San Francisco in 1919, excluding still-born registered births, barely replaced its deaths—8375 deaths and 8400 births—so 25 new souls were added by natural law to the population.

There must be a solution if true social service is done, leading through education, better health and better housing to its attainment, and every social agency has a part in the education which will have to precede a further reduction of Infant Mortality.

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## THE TREATMENT OF INDUSTRIAL DISABILITIES INVOLVING THE SPINAL COLUMN.\*

By HARRY LESLIE LANGNECKER, M. D.,  
 San Francisco.

One needs only study the reports issued by the State Industrial Accident Commission since the year 1913, to realize that injuries to the

trunk—and most of these involve the spinal column—rate third in numerical grouping after injuries to the upper extremities and injuries to the lower extremities respectively. Allowing due consideration for the yearly increase in numbers, from better recognition and reporting of these industrial disabilities, the fact remains that their frequency does not decrease or remain stationary.

Furthermore, from the information at hand, it would seem the period of disability from year to year, does not decrease in proportion to the severity of the injury treated.

These facts produce economic expression in a handicap or limitation of income to the patient and thereby on his family; inefficient work production for the employer and increase in cost of insurance. Sociologically these unfavorable influences are far reaching. How many of us realize the machinery set in motion by these cases of "lame backs"? Should the employee not have the benefit of the best medical treatment when injured while at work?

The importance of immediate correct diagnosis must be emphasized. Too frequently an inaccurate or hasty examination does not reveal the real condition. When the injury is considered of minor concern, less attention is naturally given. An ambulatory state is permitted instead of definite rest of the traumatized part. Every case should be completely controlled and closely observed until, with the necessary methods, the correct diagnosis is made and indicated treatment is well established. More care in the initial consideration of these cases and better training of the physicians handling industrial injuries are essential factors in efficient and correct treatment.

When the industrial surgeon arrives at a broader and more modern view of medical management of the average large manufacturing establishment, he will more fully realize his responsible, far reaching, influential position. Upon his shoulders must rest the burden of the health of the employees. In most cases poor facilities, and thereby greater number of injuries resulting, indicate the failure of the medical advisor to do his duty. That the employer will co-operate and assist in improving the welfare of his workmen is clearly shown by the establishment of first aid stations, the employment of trained nurses, and the installation of medical equipment, et cetera. To a large extent, occupational disabling injuries involve the spinal column. Many of these disabilities are correctable. A large proportion are preventable. Many of the "low back strains," generally passed over as unimportant, are directly due to standing or sitting in faulty positions while at work. It is for the industrial surgeon to point out these faulty working methods and present preventive, or at least curative, measures for the employer's adoption.

The employer must be enlightened, the employees must be educated in preventive medical matters pertaining to their particular industry. An industrial medical atmosphere must be created and efficiently maintained. Strapping a back or applying a plaster jacket does not complete the duties of the industrial surgeon. Should the

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



employer not have the benefit of the best medical advice in running his business?

The surgeon seeing an industrial case after treatment has been carried on for some time, fully appreciates the necessity for the employment of the best methods in the initial care of the injury.

A deformity may have become fixed, a faulty posture made habitual, the patient's mental attitude distorted, or the real injury passed unrecognized.

Too complete shifting from rigid fixation or support to over activity or non-support, should be supplemented by gradual removal of plaster jacket or brace and graduated physio-therapeutic measures for restoration of function of the involved part. Attention should be given to the importance of correcting the faulty postural habits. Less emphasis should be placed on spinal anomalies,—especially from the patient's standpoint—when they have no bearing on the treatment of the injury. Mental occupation must not be overlooked. Neither should the patient be returned to his former occupation at the end of treatment unless physically able to perform his duties but rather given such work that will not renew his disability. His employer should be informed of the medical recommendation to that effect. Braces or other apparatus to be worn must be useful not impedimentary. When the application of braces is more closely supervised by the surgeon ordering them and less leeway allowed the brace maker, such braces will serve better the purposes intended and be worn more advantageously by the patient.

In a general consideration, injuries affecting the soft tissues are more common, present a greater range of severity, are of less duration and are generally curable. The difficulty in determining the full extent of the injury should stimulate the examining surgeon to his best efforts in effecting a rapid cure. These are the cases that improve slowly unless efficiently managed, have recurrences, develop arthritic conditions and become functionally chronically disabled. Immediate effectual treatment usually produces a cure.

The bone injury group of cases are fewer in number, more disabling at onset, of longer duration, and frequently are permanent. A correct diagnosis is made more readily. Possibly on account of the rather complete immobilization, less arthritic changes occur. Restoration of function is often neglected and delayed because attention is focused on bone repair. A wise use of physio-therapy, such as occupational or mechanico-therapy, is of much value in preserving and improving bodily functioning, and thereby decreases the period of disability and lessens ultimate disabled state.

Anatomical variations, especially common in the lower portion of the spinal column, most frequently complicate the treatment of injuries of the type under discussion. It is essential, in determining the influence these malformations may have on the injury, to be familiar with the normal or near-normal anatomical relations of the parts involved. The value of exhaustive

X-ray examinations is most illuminating. Judgment, however, in the interpretation of such findings, must be clear and unbiased. The advisability of treating these complications, necessitating prolonged and expensive hospital care, surgery, apparatus, and a doubtful prognosis, must be thoughtfully considered from the industrial standpoint, and should not be undertaken unless absolutely indicated in the proper treatment of the case.

Osteoarthritis too often complicates prolonged or poorly treated cases. Much relief is obtained and the arthritis arrested by thorough elimination of the infectious foci and intensive physio-therapeutic measures. Early attention to this unavoidable element certainly lessens the ultimate disability.

Functional neuroses appear late as a complication. Every surgeon knows the difficulty in obtaining reasonable results when this condition becomes evident. The best efforts of the surgeon may be frustrated in treating such a case. A money settlement usually "cures" the patient. Efficient early treatment practically eliminates this condition.

It is the purpose of this paper to bring to your attention the importance of correct diagnosis and the advantages of early instituting the most efficient measures in the treatment of industrial disabilities involving the spinal column.

### DELAYED ULNAR PALSY FOLLOWING ELBOW INJURY.\*

By WALTER F. SCHALLER, M.D., San Francisco.

Recently there has come under our observation a number of cases of unilateral ulnar nerve palsy, due to elbow injuries antedating the oncoming of paralysis by an appreciable interval of time. These cases, at first obscure as to etiology, we have now come to recognize as the delayed type of ulnar palsy following bone injuries involving the region of the internal condyle and causing subsequent pathology in the ulnar nerve in this locality. The striking feature in this type is the long symptom-free interval. Four case histories follow:

*Case No. 1. Summary: Twenty year interval between injury to elbow and first symptoms of ulnar palsy. Condition thought to be possibly a postural neuritis or beginning amyotrophic lateral sclerosis. Radiographs showed displacement of lower fragment of humerus with new growth of bone in the neighborhood of the trochlear surface. At operation a spindle-shaped neuroma was found at epitrochlea. Neuroma split; a new bed formed for nerve in front of epitrochlea, and protected by a fascia-fat flap. Considerably improved when seen fourteen months later.*

R. M. Aged 31. Female. First seen in November, 1915. Patient gave a history of fracture of the right arm at the age of seven. Dating from this injury the elbow has shown some deformity. It is seen that there is slight limitation in flexion with cubitus varus. Other than this deformity no complaint until four years ago, when a numbness was felt first on the ulnar side of the hand and fingers, followed two years later by a weakness of the hand muscles, evidenced by buttoning shoes, using clothes-pins, tucking in bed-clothes and making beds, etc. It was sus-

\*Read before the Forty-ninth Annual Meeting of the Medical Society, State of California, Santa Barbara, May, 1920.

pected by other physicians who had examined this patient that the condition was one of postural neuritis, for patient gave a history of sleeping on the right arm with the result that this arm "goes to sleep" frequently at night. An examination revealed a hypoesthesia over the distribution of the ulnar nerve in the hand and fingers; atrophy of the hypothenar eminence and the interossei muscles was quite marked. The electrical reactions in the small hand muscles innervated by the ulnar nerve were found to show incomplete reaction of degeneration. The ulnar nerve at the internal condyle was enlarged giving the impression of a large lymphatic gland. The nerve was tender. It responded to electrical stimulation. A careful search for disturbance of motor and sensory function above the wrist showed nothing remarkable. The tendon reflexes were quite lively on both sides, and a note in the case history calls attention to the possibility of a beginning amyotrophic lateral sclerosis. X-rays of the elbow showed a considerable degree of displacement of the lower fragment of the humerus with more or less new growth of bone in the neighborhood of the trochlear surface. Flexion of the elbow lifted the ulnar nerve completely out of its groove under the internal condyle.

On January 11, 1916, Dr. Emmet Rixford exposed the ulnar nerve at the elbow. At the epitrochlea was found a spindle-shaped neuroma about twice the diameter of the nerve; below this point the nerve was thin and soft. It was decided best to split the neuroma longitudinally in several planes rather than excise it and re-suture the nerve. After this was done the nerve was lifted forward over the anterior surface of the epitrochlea and by section of a few fibers of the flexor carpi ulnaris muscle near its insertion the nerve was put in a less exposed position, with a flap of fascia and fat for protection, and the wound closed. When seen again, on March 21, 1917, the patient stated that there was no longer numbness in the hand, and that the muscular power had considerably improved. Clinically the hand showed none of the evidences of ulnar palsy.

*Case No. II. Summary: Complaint of weakness of the hand muscle five months after having received an apparently trivial injury to elbow while wrestling. Radiograph revealed chipping of internal condyle. At operation nerve was found to be enlarged by fusiform swellings. Joint-mouse in bursa below nerve. Fusiform swelling slit; bursa and joint-mouse removed; replacement of nerve. Considerable improvement after operation.*

I. T. Aged 33. Professional wrestler. First seen in February, 1916. Eight months before while wrestling fell on left arm with hand and forearm in supination. Although he suffered some pain he continued with his exercise, did not consult a physician, and the only disability which he noticed afterward was that he could not place the left hand back of his neck without pain at the elbow. Three months ago first noticed a weakness in the left hand and also a wasting of the left hand muscles. Examination revealed a wasted hypothenar eminence, the interossei were quite weak as shown by the functional tests. Sensory examination revealed a hypoesthesia in the ulnar distribution in the hand and fingers, but the epicritic sensibility was conserved. The electrical reactions showed reaction of degeneration in the hypothenar group of muscles and the interossei, and the ulnar nerve at the elbow did not act to either the faradic or galvanic current. The ulnar nerve could be felt to slip out of its groove in flexion, and the nerve was quite sensitive on pressure. Radiographs showed small bones with indefinite epicondyles,—the inner being notably small; below it were two minute bits of bone, which possibly were torn off by muscular effort.

On February 26, Dr. Emmet Rixford exposed the ulnar nerve at the elbow, which was found to

contain several fusiform swellings in the individual divisions of the nerve. Two of these swellings were slit, but no encapsulation was present to permit of an enucleation of any neuroma. When the nerve was lifted out of its groove a typical joint-mouse was felt in the bursa, and this was opened and the joint-mouse removed, and finally the entire bursa was removed. The sheath of the nerve was reunited, the nerve replaced in its groove, and the fascias over it closed. On November 27, 1916, patient reported that the paralysis was much less. The ulnar hand muscles and the interossei had regained much of their volume, and the hand tests showed considerable improvement in function.

*Case No. III. Summary: Twenty-eight years before onset of symptoms fracture of internal condyle which had not united, as seen in the radiograph. Motor paralysis quite marked, objective sensory changes very slight. Operative treatment by transposing the nerve anteriorly and suturing condyle.*

M. P. Male. Aged 40. Laborer. Stanford Dispensary No. 80142. Seen November 12, 1919. Patient complained of numbness, coldness, and partial paralysis of right hand, first noticed two years before. Thirty years ago he fell, fracturing his right elbow. An examination revealed marked atrophy of the dorsal interossei, especially the first; weakness of the other muscles supplied by the ulnar nerve in the hand, but the electrical reactions showed no degeneration. There was no alteration in perception to pain and temperature, but there were areas of anesthesia to light touch in the typical ulnar distribution. A radiograph showed evidence of old ununited fracture of the internal condyle of the humerus. A notable swelling was felt in the trunk of the ulnar nerve at the region of the internal condyle.

Operation by Dr. Emmet Rixford on December 13, 1919. The nerve was found to be bound down and constricted with fibrous tissue and above this constriction slight but soft enlargement of nerve; below constriction nerve much softer than normal and noticeably smaller. The epitrochlea was cut away, retaining attachments of flexor muscles; cartilage and fibrous tissue were cut away from the opposing end of the humerus; the bone was smoothed, and the epitrochlea was attached with wire mattress sutures. The nerve was replaced in front of the joint and the arm put up in a right angle splint. A note on February 18 states that there appeared to be some sensory improvement in the hand. The motor disability and atrophy had not changed perceptibly although patient had been receiving electrical treatments in the interval.

*Case No. IV. Summary: Seventeen year interval between extensive elbow joint injury and commencement of ulnar neuritis causing more motor than sensory paralysis. Complete reaction of degeneration. Operative treatment by dislocating the nerve anteriorly in front of internal condyle.*

A. R. H. Male. Aged 30. Was seen on December 8, 1919, referred by Dr. Leo Eloesser for electrical examination. At the age of eight he injured the right elbow, with following considerable deformity and loss of motion in the joint. Five years ago he noticed a beginning weakness and numbness in the hand, especially on the inner side, and this condition has grown progressively worse. If he flexed the elbow during sleep he was awakened by pain. An examination showed typical motor and sensory paralysis in the ulnar distribution in the hand, the sensory changes being in the nature of a hypoesthesia, most marked to temperature but quite marked for pain, and to a less degree to touch. There was marked atrophy of the interossei, hypothenar group, and adductor of thumb. The electrical reactions showed complete reaction of degeneration in the ulnar hand muscles. The radiograph showed fracture of the external condyle of the humerus with wide separation of the fragments; there was also disloca-





Case I. Displacement of Lower Fragment of Humerus with New Growth of Bone in the Neighborhood of the Trochlear Surface



Case III. Old Ununited Fracture of Internal Condyle

tion of the head of the radius. The deformity consisted of an old fracture dislocation of right elbow with 55 degrees varus angulation and a projection over internal condyle.

On December 8, 1919, Dr. Eloesser exposed the nerve at the elbow. His operative notes follow:

"Ether anesthesia. Esmarch bandage, removed after exposure of nerve, remaining in place  $\frac{1}{2}$  hour. Nerve exposed through 8-inch incision, 5 inches above and 3 below elbow. Above the elbow there is a network of engorged veins surrounding the nerve outside of the sheath as far as it can be exposed. The sheath, for a distance of 3 or 4 inches both above and below the elbow, is adherent with old but widely separated perineural adhesions to the surrounding muscle and underlying periosteum. Where it crosses the broad condylar notch it is two to three times as thick as normal, red, somewhat gelatinous, and is the seat of a spindle-shaped swelling about two inches in length. The part of this swelling lying nearest the internal condyle, i. e., the internal anterior quadrant of the nerve, is harder than the rest of the nerve. The nerve is freed through the place where it dives between the two heads of the ulnar carpal flexor. It is swollen as far down as it is exposed. The nerve is lifted up from its bed and dislocated, being placed anteriorly in front of the internal condyle. It is held in this place by severing the internal head of the ulnar carpal flexor from its attachment to the ulna, passing the nerve underneath it, and stitching the head of the muscle back into place. The subcutaneous fat is tacked with 2-3 catgut stitches to the superficial fascia, holding the nerve loosely above the elbow. Wound closed without drainage."

The patient was seen last on January 30, 1920.

when the condition was very little altered in the affected hand.

The most important recent article on this condition was written by J. Ramsay Hunt, reporting three personal cases. He emphasizes the long period of latency—in one case thirty-five years. The first description was recorded by Panas. Sherren made histological studies of excised portions of the diseased nerve in two cases and considers the pathology due to an interstitial neuritis, with irregular areas of sclerosis in the perineurium and endoneurium. It will be seen in the above case reports that clinically a glioma was suspected and thought to be found on operative exploration. One of Hunt's cases (Case 3) was very similar to Case 2 of our series in that a firm cystic tumor was found beneath the ulnar nerve compressing it and pushing it forward. The tumor was apparently a hernia from the joint synovial membrane which had been constricted. In this case recovery was complete. Whatever be the pathologic condition of the nerve, the long mechanical and irritating factors in its causation are evident.

In the differential diagnosis, aside from the ordinary neuritis and its common etiological factors, several affections must be emphasized. These are: Amyotrophic lateral sclerosis, ordinary pressure palsy, and Hunt's hypothenar type of neural hand atrophy. Neel reports a case in which the atrophy was ascribed to an intraspinal process acting on the spinal cord, and a futile laminectomy was



Case IV. Old Fracture of the External Condyle of the Humerus with Wide Separation of Fragments; Dislocation of Head of Radius

done. One of Hunt's cases was diagnosed as progressive muscular atrophy by several neurologists of wide experience and training. John B. Murphy reports a case in which a prognosis was based on the electrical reactions. An abstract of Murphy's case history follows:

"A man aged thirty years injured his left elbow when four years of age. He complained of pain in the arm, weakness, and wasting of some of his hand muscles. Examination revealed the interossei and lumbricales atrophied; also muscles of the hypothenar eminence and the adductor of the thumb. A skiagram showed evidence of an old fracture, with non-union of the external condyle. The ulnar nerve was exposed, found to be about three times its normal size, the seat of a neuroma. Transmission through the neuroma was found by stimulation by the faradic current after the nerve was freed. This was interpreted to mean that connective tissue compression of the axons of the nerve prevented transmission of nerve impulses and function. The nerve was transplanted in front of the condyle, with a good prognosis for restoration of function after the nerve was protected from injury by a fat and fascia flap placed beneath it."

The treatment is essentially surgical, the surgical indications being different in the individual case. From my own observations I believe that conservative treatment should be the rule, especially as regards excision of the neuroma-like swellings. Protecting the nerve from irritation by forming a new bed in front of the internal condyle seems a logical procedure. The operation of Mouchet, which according to Hunt is the one of choice in certain cases, consists of a supra-condyloid cuneiform osteotomy, connected with

a deepened and enlarged ulnar groove in which the nerve rests. Freeing the nerve from adhesions, removing joint-mouse when present, and splitting the nerve, have been done. The prognosis of course depends on the amount of connective tissue formation in the nerve. When this is present in a marked degree complete restoration of function cannot be expected.

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### THE TREATMENT OF CHRONIC AMEBIC DYSENTERY CYST CARRIERS.\*

By CHAS. L. McVEY, M. D., Oakland.

Warrington Yorke in England undertook the work of curing amebic cyst carriers because—

1st. Carriers of amebic dysentery might be the means of infecting others.

2nd. As long as cysts are present carriers may experience a relapse of acute dysentery or hepatic abscess.

Among 4,000 chronic or convalescent dysenterics, cysts were found present in 11.5%. Among 450 cases not suffering from dysentery, 7.8% were positive. Among people who had never been out of England, Yorke found statistics as follows:

548 Children—1.8% infected.

450 Men and Women—1.5%.

Young men of eighteen or nineteen years were found more heavily infected than the civilian population regarded as a whole (5.6%). Families are infected from other members of the family in 68% of cases.

Yorke believed that amebic dysentery existed in England before the war to an extent which was then unrealized. Similar statistics were attained by Matthews and Smith, Baylis, Dobell, in New Zealand, and Wenyon and O'Connor in Egypt. The work of Kofoid, Kornhauser and Plate in the United States has shown an incidence of 3% infection in Home Service Troops and 10.8% in Overseas Troops.

It would seem from the above facts that the treatment of chronic amebic cyst carriers is a public health problem of considerable importance.

Many drugs have been recommended as possessing amebicidal power. Among them may be mentioned Quinine, Chaparro Amargosa, Oxygen, Oil of Chenopodium, Ipecac, Emetine, Bismuth-Emetine Iodide, Salvarsan and Neo-Salvarsan, and lately Benzyl Benzoate. Emetine became very popular following the discovery of Vedder in 1912 that emetine killed ameba in a dilution of 1 to 100,000. Later Rogers in India reported fa-

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



avorable results from the use of emetine hypodermically.

Innumerable reports have been made upon the efficacy of Emetine Hydrochloride given hypodermically as an amebicide, but in most of the clinical reports no attempts were made to examine the stools over a period of weeks following the completion of treatment. It is now generally considered that emetine given hypodermically is inefficient. More encouraging results are obtained by the combined use of Emetine hypodermically and Bismuth-Emetine-Iodide by mouth.

Gunn reported twenty-one cases in which the combined treatment—i. e., Emetine and Salvarsan or Neo-Salvarsan—was carried out. His conclusions were as follows: "Emetine, Salvarsan or Neo-Salvarsan rarely cure when given alone, but the combined use of Emetine Hydrochloride and Salvarsan or Neo-Salvarsan or Novarseno-Benzol may be expected to produce a radical cure in a large proportion of cases, if the arsenic compound is injected while the patient is well under the influence of the Emetine. The treatment as carried out by this method is far more rapid, less severe and apparently much more efficacious than with most of the old methods of treatment."

Opportunity was afforded at the University Infirmary at Berkeley to treat Amebic Dysentery carriers among the student population. The students as a rule are willing to cooperate. They reside at Berkeley or its environs about nine months out of the year and are, to a certain degree, under discipline. Again the excellent services of Dr. Kofoid and his staff were at our disposal at all times. Six or more stools were submitted for diagnosis, and it is intended in each case to have six stools examined each month for six months before final judgment is passed as to cure.

*Combined Emetine and Bismuth-Emetine-Iodide Treatment—Method of Administration*

Emetine, Hydrochloride (B. & W.)—gr. 1.  
Hypodermically each morning for six days.

Bismuth-Emetine-Iodide salol-coated pills (B. & W.)—gr. 3.

By mouth at bedtime for twelve days.

I.	No. of cases treated.....	35
II.	No. of cases relapsing following first course .....	10 (28%)
III.	No. of cases relapsing following second course .....	4 (12%)
IV.	No. of cases cured—	
	(a) 30 days' observation .....	11 (31%)
	(b) 60 " " .....	5 (14%)
	(c) 90 " " .....	1 (3%)
	(d) 120 " " .....	4 (12%)

Subsequent observation will probably show 60% to be too high a percentage of cure, as some of the cases observed after an interval of thirty days may relapse. One case included in the report relapsed after an interval of ninety days, ten negative stools having been obtained in the interim.

It is an important point to know at what period following treatment a case may be safely discharged as cured, a point that has never been defi-

nately determined. Certainly thirty days is too short a period of observation. The fourteen relapsing cases were treated with Neo-Salvarsan given intravenously in dosage of .3-.6-.5. Observations are available in ten of these fourteen cases. Three cases received Neo-Salvarsan intravenously at four-day intervals, and during the period when the Emetine and Bismuth-Emetine Iodide treatment was being administered; all were cured. Minimum period of observation, sixty days. Seven cases received Neo-Salvarsan intravenously at weekly intervals in dosage of .3-.6-.6; all were cured. Minimum period of observation, sixty days.

The results obtained bear out the contention of Gunn as to the efficacy of Neo-Salvarsan as an amebicide, but it is quite possible (results obtained in seven cases) that Neo-Salvarsan given alone at proper intervals and in proper dosage may be effective without the use of Emetine or Bismuth-Emetine-Iodide. Further observations are necessary to determine this point.

*BENZYL BENZOATE IN THE TREATMENT OF AMEBIC DYSENTERY CARRIERS.*

It has been suggested by D. I. Macht that Benzyl Benzoate might possess some amebicidal powers. "In connection with dysentery, it may be here stated that possibly in that condition the benzyl esters may act beneficially not simply by checking the excessive peristalsis of the intestines but also by specific protozoocidal effect on the ameba, because the author, in collaboration with E. Fisher, has found that the benzyl esters are very toxic for certain lower organisms in vitro." Haughtwout and Lantin report eight cases of Endamebic Dysentery treated with Benzyl Benzoate. The drug was administered in a small amount of cold water three times daily after meals. The dose employed varied from 20 to 30 drops of the 20% alcoholic solution. The following observations were made:

(a) "Benzyl Benzoate takes the place of Morphine in dysentery in that it slows the peristalsis and relieves the pain and tenesmus."

(b) "Endamebas disappear from the stools in nearly every case as the general symptoms subside."

(c) "In combination with Ipecacuanha or its alkaloids, Benzyl Benzoate noticeably shortens the term of illness."

The authors suggest that the effects of Benzyl Benzoate administration upon the chronic and "carrier" cases should be determined. Following this suggestion I have made observations upon eighteen "carrier" cases.

The 20% alcoholic (miscible) preparation of Messrs. Hynson, Westcott and Dunning was employed. It was given in dosage of 30 drops three times daily in a half glass of water after meals. Treatment was continued for a period of two weeks. The table shows the variation in the findings from day to day. In not one of the cases was a cure effected by the use of Benzyl Benzoate.

The word "cure" has been used very loosely in the literature dealing with amebic dysentery. A cessation of symptoms and disappearance of both

vegetative and encysted forms from the stools for a few days does not mean "cure."

In some of the cases the table shows that for a period during the treatment the cysts disappear from the stools. It is questionable whether the drug per se played any part in this disappearance. It is known that amebic cysts appear and disappear in cycles. Much inaccuracy in clinical reports will result if this fact is overlooked.

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### SHORTAGE OF TRAINED NURSES.

By W. F. McNUTT, Sr., M. D., Byron, Calif.

Physicians, hospitals and all communities are feeling the scarcity of trained nurses. While the trained nurse is comparatively a new factor in society, she has become necessary and important in every well organized community. The outlook is not encouraging as the supply is falling off. Perhaps the older physicians and surgeons, more particularly, realize and appreciate the value of the trained nurse. Hospital staffs take quite a gloomy view of the nurse problem.

There are several causes for the shortage. The two very important, are the high requirement for entrance and for graduation and the long period of training. Then the many opportunities that are constantly offering, in commercial fields, for young women with shorter hours and more agreeable employment. Again much of the work that student nurses are required to do while in training in hospitals, should be done by hospital maids. Also the vastly increased fields for trained nurses, are shortening the supply, such as school boards, charity boards, lodges, Salvation Army, etc.

The shortage in trained nurses can and must be met. Every experienced physician and surgeon and every sensible hospital staff realizes that the requirements for entrance and graduation for nurses are absurdly high and the period of training unreasonably long. The remedial measures must not be left to doctrinaires and idealists, but to those to whom the matter is of vital interest. Many young women would be willing and able to sacrifice a commercial salary for two years, while training, but would be unwilling or unable to sacrifice three years. If a young woman

with two years' training in a well equipped hospital is not a competent nurse she never will be. Inefficiency is not confined to nurses and is not obviated by an extra year of training. If nurses wish to take up certain lines and can afford to do so, they should do as physicians do, attend special hospitals for post-graduate work. The trained nurse has become as it were the third hand of the physician and surgeon and a necessity to every well-regulated hospital. Doctrinaires and idealists have handicapped physicians, hospitals and communities. Let those who are most vitally interested see to it that the requirements for entrance and graduation for nurses be lowered and the training time be reduced to two years. Then and only then will the supply of nurses increase to meet the demand.

### Book Review

**Surgical Clinics of Chicago.** Volume 4, Number 2 (April, 1920). 233 pages. 80 illustrations. Published bi-monthly. Philadelphia: W. B. Saunders Company. 1920.

**A. J. Ochsner:** Prostatectomy. **H. L. Kretschmer:** Carcinoma of the bladder. **E. L. Moorhead:** Rupture of quadriceps extensor tendon. Varicocele. Septic gall-bladder with spontaneous cholecystenterostomy. **C. B. Davis:** Cervical rib. **L. F. Watson:** Local anesthesia for inguinal herniotomy. **H. N. MacKechnie:** Silent appendical abscesses in children. Foreign body impacted at ileocecal junction. **A. B. Bevan:** Carcinoma of the stomach—anterior gastro-enterostomy. Carcinoma of the splenic flexure. Imperforate anus. Fracture of the malar bone. Musculospiral paralysis: Treatment by tendon transplantation and nerve suture. **G. L. McWhorter:** Perineal ectopia testis. **R. L. Moodie:** Primitive surgery in Ancient Egypt. **C. A. Parker:** Congenital dislocation of the patella. **Kellogg Speed:** Inguinal hernia. **D. C. Straus:** Subdiaphragmatic abscess. **D. N. Eisendrath:** Diagnosis of tuberculosis of the kidney and the technic of nephrectomy. **Dr. Gatewood:** Strangulated ovarian cyst. **E. L. Cornell:** Ectopic pregnancy. Ovarian cyst simulating ectopic gestation. **F. G. Dyas:** Umbilical hernia in a baby eight hours old. Intestinal obstruction. **Medical Clinics of North America.** Volume III, Number 5 (Philadelphia Number, March, 1920). By Philadelphia Internists. Octavo of 325 pages with 26 illustrations. Philadelphia and London: 1920. Issued serially, one volume every other month. Paper, \$12.00; Cloth, \$16.00 net. Consisting of six numbers per clinic year.

**J. B. Deaver:** Chronic appendicitis. **Thomas McCrae:** Low blood pressure. **E. H. Funk:** Malignant disease of the lung. **M. E. Rehfuess:** Analysis of diseases of the gall-bladder and ducts. **B. B. V. Lyon:** Some aspects of the diagnosis and treatment of cholecystitis and cholelithiasis. **E. J. G. Beardsley:** Chronic valvular heart disease. Ethics, ideals, and efficiency in the practice of medicine. **H. K. Mohler:** Discussion of diabetes mellitus in children. **Alfred Stengel:** Treatment of valvular heart disease before failure of compensation. **David Riesman:** Edema of the lungs. **H. R. M. Landis:** Meningitis. **G. W. Norris:** Syphilitic aortitis. **J. H. Muesser:** Three instructive cases. **Joseph Sailer:** Mumps. **E. H. Goodman:** Significance of heart murmurs in young individuals. **O. H. P. Pepper:** Hodgkin's disease with jaundice as an early symptom. **A. H. Hopkins:** Treatment of catarrhal jaundice. **J. C. Doane:** Drug inebriety. **C. B. Farr:** Painless gastric crises.



## Immunity

The Journal will express no opinion of and assume no responsibility for the views of "Immunity" correspondents. They must win or lose on their own merits by abounding in their own wisdom, and each reader must appraise each communication for what it is worth and take it for better or worse.

Communications will not be signed when published, but the author must be known to the editor. Send on your complaints, your kicks, your knocks, your boosts. We want constructive and destructive criticism. Air your pet hobbies. You are not limited to your own town or the medical profession.

### THE HEALING POWER OF PRAYER

To the Editor: The letter signed by "One Who Wants to Know," in the April issue of the Journal, unjustly criticizes the Episcopal Church and the recent Christian Healing Mission held at Grace Cathedral, San Francisco.

Mr. Hickson in his address to the sick, told them not to forsake their physicians, but to honor them with the honor due them, for the good work they are doing for humanity. But as every physician will admit, God is the ultimate source of all healing, and to the firm believer in God "all things are possible."

Mr. Hickson's method has no connection with psychotherapy, neither is it healing by mental suggestion. It is healing through the power of prayer, in obedience to the command of Christ "to heal the sick." Of course, to a person who never prays, to the man whose spiritual life is atrophied, it may seem strange, but to the man of spiritual habits, to the believer in Jesus Christ, prayer is a mighty power.

There is no war between physical healing, as practiced by physicians and surgeons, and spiritual healing. There must be co-operation between those attacking evil from the physical side and those attacking it from the spiritual side. God works from both sides. Any broad-minded doctor must admit that God does heal through surgery and through medicine. He does at times heal through mental suggestion. Yes, he does at times heal through the power of prayer. Instead of criticizing, let us as physicians and surgeons make greater use of the Power of Prayer. It will make us better physicians and surgeons. From

"ONE WHO KNOWS."

June 25, 1920, San Jose, Calif.

## Correspondence

### FROM A. M. A. DELEGATE

San Francisco, June 14, 1920.

To the Editor:

In reply to your letter of June 10, 1920, enclosing the official copy of the report of Dr. Van Zwalenburg, I feel that I have very little to add to what Dr. Van Zwalenburg has already said as far as the personal side of the meeting is concerned. There are some things, however, in connection with the reports of the various councils that I believe would be interesting to the members of the component county societies. The Council on Health and Public Instruction, in its report for 1919, stated that at the present time there are only five states in which satisfactory legislation has not been enacted on vital statistics. Two of these states are in the vicinity of California, and it is within the province of the members of our society to co-operate in an effort to have model bills passed on birth and death registration in these states. The committee on Scientific Research of the Council on Health and Public Instruction has done during the past year one of the best pieces of work in its record. Quoting from Senate Bill 1258, introduced by Senator Myer of Montana, "while apparently only intended to forbid the use of dogs for experimental purposes in the District

of Columbia, was in reality an opening wedge for general restrictive legislation." The bill was referred to the Judiciary Committee of the Senate and by this Committee was referred to a subcommittee consisting of Senator Norris of Nebraska, chairman, Senator Colt of Rhode Island and Senator Ashurst of Arizona. Hearings covering several days were held in Washington the first week in November, 1919. The usual lobby antivivisectionists, officers of antivivisection societies, and others was present to urge the passage of the bill. The scientific side of the case was presented by an imposing array of distinguished scientific men under the leadership of Dr. Walter B. Cannon of Harvard Medical School. It is doubtful if any discussion of this question has ever been more brilliantly or convincingly conducted. The full report of the hearing published by the committee forms an interesting collection of scientific data as well as an exposition of the misstatements and fallacious arguments of the antivivisectionists. The bill has never been reported out of committee.

Another report of interest which was made before the House of Delegates was that of a special committee appointed to study the question of habit-forming drugs. It was the conclusion of this committee that with the present method of importing into this country large quantities of opium and without restrictive measures to limit the manufacture of the alkaloid of this drug, very little could be accomplished by the Harrison Act in limiting drug addicts. Further conclusions were drawn by this committee to the effect that heroin had no special value in medicine that was not filled by the other alkaloids of opium, and that it played great havoc in the formation of new addicts. The committee went on record as favoring legislation which would prohibit the manufacture and sale of heroin on this account. Numerous other instructive measures were suggested before the House of Delegates, and taking everything into consideration, the meeting impressed one as being most instructive in character.

Faithfully yours,

(Signed) E. C. FLEISCHNER.

## County Societies

### ALAMEDA COUNTY

The regular monthly meeting of the Alameda County Society was held at the Health Center, June 21st.

Dr. C. A. Dukes presented an exceedingly interesting program.

"Ectopic Pregnancy," a carefully prepared paper, was read by Dr. S. H. Buteau.

"Early Treatment and Care of Compound Fractures," was the title of a timely paper by Dr. W. S. Bell.

Dr. Wm. A. Clark's paper: "A Possible New Operation for Ventricle-Suspension of the Uterus for Complete Prolapse," was illustrated by excellent slides demonstrating the technique devised by the author.

Dr. A. C. Siefert presented a paper entitled: "Diseases of the Lung and Pleura of Surgical Interest as Seen by the Roentgenologist." The paper was illustrated by slides and a number of excellent photos.

Each of the papers was followed by lively discussions.

Health center activities were considered at the monthly meeting of the staff and medical director, Dr. Alvin Powell.

The Staff of the Alameda Hospital at its monthly meeting July 12th discussed interesting matters of routine.

**LOS ANGELES COUNTY**

The Los Angeles County Medical Association will not have any regular meetings during the months of June, July, August and September.

**The Bulletin**

The Los Angeles County Medical Association will continue to publish its Bulletin as usual during the vacation months. We cannot refrain from commending the Secretary Dr. Harlan Shoemaker for the steady growth of the Bulletin. Before long it will practically be a semi-monthly medical journal. We must also congratulate him on the choice of his assistant Secretary, Mrs. Gilman, who does the work in such an efficient manner. Her uniform courtesy and that of her office force is highly appreciated by those who have to transact business in the L. A. Co. Medical Exchange.

**Symposium Society**

Regular Meeting, May 26th,

**Program**

- Basal Metabolism—Its Estimation and Diagnosis ..... Robert B. Hill, M. D.  
 Asthma—Its Etiology and Diagnosis ..... Geo. Piness, M. D.  
 The Attack upon Scientific Medicine at the coming General Election ..... Walter V. Brem, M. D.

**The Los Angeles Clinical and Pathological Society**  
May 27, 1920**Program**

1. Dr. P. C. H. Pahl: A New Stitch and Stitch Support to Reinforce the Fascia.
2. Dr. Ellis Jones: The Operative Treatment of Irreducible Dislocation of the Hip Joint—Illustrated by Stereopticon Slide.
3. Dr. Charles L. Allen: Report of case of Landry's Paralysis.
4. Dr. C. Van Zwalenburg: A Simple Method of Draining the Chronically Distended Urinary Bladder.
5. Dr. George McCoy: Child 2½ years: Three-quarters inch screw removed by Tracheal Incision, Bronchoscope.
6. Dr. Rex Duncan: Therapeutic application of Radium Emanations. Illustrated by lantern slides.

**Harbor Branch**

May 28, 1920

**Program**

"Treatment of Neuro-Syphilis"

- ..... R. W. Wilcox, M. D.  
 Discussion ..... B. M. Mikels, M. D.  
 "Surgical Considerations in Brain Injuries" .....  
 ..... Carl W. Rand, M. D., Los Angeles  
 Discussion ..... A. C. Sellery, M. D.  
 ..... B. S. Chaffee, M. D.

**Urological Section**

June 1, 1920

**Program**

1. Demonstration of a rare type of bladder calculus ..... Granville MacGowan, M. D.
2. Treatment of chancroid ..... Lasher Hart, M. D.
3. When is gonorrhea cured? ..... A. R. Rogers, M. D.

**Southern California Society of Anesthetists**

Regular Meeting, June 1st

**Program**

- Spinal Anesthesia in Obstetrics .....  
 ..... Harry T. Cooke, M. D.  
 DuPont Ether ..... Geo. P. Waller, M. D.

**Eye and Ear Section**

June 7th

Discussion and adoption of new constitution and by-laws. This will be the last regular meeting of the season.

**Pomona Branch**

Regular Meeting, June 1st, 1920

- "Ad-plexv" ..... Robert Smith M. D., Pomona, Calif.  
 "Parinaud's Conjunctivitis" .....  
 ..... D. C. Bryant, M. D., Claremont, Calif.

**Santa Monica Branch**

June 7th

**Program**

- "Benign and Malignant Tumors of the Prostate, with especial reference to Pathology and Treatment" ..... Dr. H. A. Rosenkranz  
 Case Report ..... Dr. Hal Rice  
 "Recent advances in the treatment of Diabetes Mellitus" ..... Dr. Nelson W. Janney  
 (Director of the Memorial Laboratory and Clinic, Santa Barbara.)

**MEDICAL ORGANIZATIONS IN LOS ANGELES COUNTY****Sections and Branches of the L. A. County Medical Association****Harbor Branch****Officers—**

- Chairman, R. H. Shippey, M. D., Long Beach.  
 Vice-Chairman, Wm. Day Moore, M. D., San Pedro.  
 Secretary-treasurer, B. Von Wedelstaedt, M. D., Long Beach.  
 Meetings—Fourth Tuesday of the month.

**Pasadena Branch****Officers—**

- Chairman, E. G. Mattison, M. D.  
 Vice-Chairman, J. H. Breyer, M. D.  
 Secretary-Treasurer, Caroline McQuiston Leete, M. D.  
 Meetings—.....

**Pomona Branch**  
(Pomona Valley Medical Association)**Officers—**

- Chairman, Paul W. Newcomer, M. D.  
 Secretary-Treasurer, W. H. Eaton, M. D.  
 Meetings—First Tuesday of the month at Pomona Valley Hospital.

**Officers—**

- Chairman, Edward N. Reed, M. D., Santa Monica.  
 Secretary-treasurer,  
 Raymond A. Sands, M. D., Ocean Park.  
 Meetings—First Monday of the month.

**Eye and Ear Section****Officers—**

- Chairman, Frank Miller, M. D.  
 Secretary-treasurer, C. R. K. Swetman, M. D.  
 Meetings—First Monday of the month.

**Obstetrical Section**  
(L. A. Obstetrical Society)**Officers—**

- Chairman, E. M. Palette, M. D.  
 Secretary-treasurer, A. J. Scott, Jr., M. D.  
 Meetings—Second Tuesday of the month, at 1501 So. Figueroa St. Discontinued during summer

**Urological Section****Officers—**

- Chairman, Granville MacGowan, M. D.  
 Vice-Chairman, Robert V. Day, M. D.  
 Secretary-treasurer, H. A. Rosenkranz, M. D.  
 Meetings—First Tuesday of the month.

**OTHER SOCIETIES****Los Angeles Clinical and Pathological Society****Officers—**

- Chairman, W. A. Edwards, M. D.  
 Secretary-treasurer, A. B. Cecil, M. D.  
 Meetings—Fourth Thursday of the month. Discontinued during summer.

**Los Angeles Surgical Society****Officers—**

- President, Chas. D. Lockwood, M. D., Pasadena.  
 Secretary-treasurer, Clarence G. Toland, M. D.  
 Meetings—Second Friday of the month.



**Symposium Society****Officers—**

President, Rolland S. Cummings, M. D.  
 Secretary-treasurer, Geo. Piness, M. D.  
 Meetings—Last Wednesday of the month.

**Innominate Society****Officers—**

President, Simon Jesberg, M. D.  
 Secretary-treasurer, Clarence A. Johnson, M. D.  
 Meetings—Second Wednesday of the month at  
 1501 So. Figueroa St., discontinued during summer.

**Southern California Society of Anesthetists****Officers—**

President, Frank D. Bullard, M. D.  
 Secretary-treasurer, Elcanor Seymour, M. D.  
 Meetings—First Tuesday of the month, at 308  
 Consolidated Realty Bldg.

June 17th, 18th and 19th were selected for the summer meeting of the Pacific Coast Roentgen Ray Society in joint session with the Western Section of the American Roentgen Ray Society.

The following papers were given at the Scientific sessions:

"The Anomalous Position of Roentgenology in Medical Practice".....

Dr. W. Warner Watkins, Phoenix, Arizona.

"Retroperitoneal Pathology Encountered in the Roentgen Examination of the Gastro-Intestinal Tract".....Dr. M. P. Burnham, San Francisco, Calif.

"Motor Physiology of the Colon as seen by the X-Ray".....Dr. James T. Case, Battle Creek, Mich.

"Two cases of Lymphatic Disease in the Same Family, with Roentgen findings".....

.....Dr. C. M. Richards, San Jose, Calif.

"Radiological Diagnosis of Aortic Aneurysm".....

.....Dr. Lloyd B. Crow, San Francisco, Calif.

"Some Pitfalls in X-Ray Diagnosis and Prognosis".....

.....Dr. Chas. W. Stewart, Salt Lake, Utah

"The Roentgen Ray in Group Medicine".....

Drs. M. H. Tallman and L. R. Cornman, Boise, Idaho

Discussion opened by Dr. Roy Thomas, Los Angeles

"The Roentgen Diagnosis of Gastro-Intestinal Lesions".....Dr. Francis C. Turley, Los Angeles

The officers of the Pacific Roentgen Ray Society are as follows:

President, Dr. W. B. Bowman, Los Angeles.

Vice-President, Dr. M. P. Burnham, San Francisco.

Secretary, Dr. C. M. Richards, San Jose.

The officers of the Western Section, A. R. R. S., are as follows:

President, Dr. Albert Soiland, Los Angeles.

Secretary, Dr. W. Warner Watkins, Phoenix, Arizona

**Innominate Society****Regular Meeting**

Time: June 16th at 8 P. M.

Place: 1501 So. Figueroa.

**Program**

Acidosis and Its Treatment...Wm. Daniels, M. D.  
 Some of the Uses and Limitations in Diagnosis under Roentgen-Ray.....Ray Carter, M. D.

Reverden's Skin Grafts in Pus Cases, and Presentation of a Patient.....Wm. T. Rothwell, M. D.

Clarence A. Johnson, M. D., Secy-treas.

**Personals**

Dr. A. L. Shelton of the Foreign Christian Missionary Society, who was recently released from Tibetan bandits through the efforts of American and French diplomatic authorities, will

return to his wife and family in Pomona. Dr. Shelton is now at the Mayo Sanitarium for treatment from the effects of his captivity.

Dr. Muriel D. Cass, former physician of Juvenile Hall, will leave Los Angeles to join her husband, Lieutenant Phil Cass, at Camp Stanley, Texas.

Dr. Laura T. Myers has returned from abroad, where she served in the American Woman's Hospitals. Dr. Myers co-operated with the Serbian Child Welfare Association. She reports that Dr. Etta Gray, director of the American Woman's Hospitals is engaged in establishing hospitals throughout that country.

Dr. W. Jarvis Barlow in an interesting article addressed to the Executive Committee and Directors of the California Tuberculosis Association, published in the Bulletin of the Los Angeles County Medical Association of June 3rd, highly recommends occupational therapy in all county sanatoria.

Dr. Joseph Marshall Flint, Colonel of the Yale Mobile Hospital Unit which the United States government adopted as the most efficient type of mobile hospitals, is visiting his mother, Mrs. Sarah Flint, of Los Angeles. He is accompanied by his wife, nee Apperson, the niece of the late Mrs. Phoebe Hearst. They are going to spend their vacation at their home, "Wyntoon" on the McCloud river in Shasta County, California.

Dr. Flint was formerly professor of anatomy for six years at the University of California, and is holding the chair of surgery at Yale. He was decorated with the distinguished service medal in France.

**League for the Conservation of Public Health**

In the Bulletin of June 17 the objects of this League are concisely and convincingly stated. In the issue of July first Dr. Walter V. Brem in an article entitled "Why join the League?" ably and forcibly speaks of the purpose as defensive, offensive and constructive. He urges every one to join as a matter of civic duty. Be sure to consult your Bulletins and prepare for coming events.

Dr. Lyle G. McNeile, Chairman of the Committee on Public Health and Legislature, makes a strong plea in the Bulletin under heading "Is the Medical Profession Asleep at the Switch?"

**Deceitful Methods of the Antivivisectionists**

Dr. W. T. McArthur shows up the propaganda of antivivisectionists among voters, how they distort the facts, mislead and falsify the practise of vivisection. You will also find this masterly article in the Bulletin of July first.

**The Nursing Situation**

Because of the reduction of nursing hours the County Medical office has established a registry for nurses who will conform to the old regulations and the members of the Association pledge themselves to employ only such nurses.

The unqualified support of the members is urged.

**Airmen to Aid Orthopedic Hospital-School**

June 13, an airplane rodeo was held at the Chaplin Airdome to raise a part of the \$100,000 needed for the construction of the institution for the care of crippled children. Sixty thousand dollars have been raised, \$50,000 was donated by Mrs. Anita Baldwin. Mr. Brockman gave property in Singleton Court valued at \$90,000.

**University Hospital Medical College**

Dr. Charles W. Bryson announced that a million dollar hospital and medical college will be built in Los Angeles by Jan. 1, 1921. Articles of incorporation have been filed with the Secretary of State.

The name of the institution will be "University Hospital Medical College." The building will include a 250-bed hospital, research and medical laboratories.

The hospital will be open for persons who have sufficient money to pay a small hospital fee but not enough for a surgeon's fee. The leading surgeons of Los Angeles will give their services.

There will be post graduate work for physicians and surgeons.

The incorporation papers give the names of directors as follows: Dr. Chas. W. Bryson, Dr. Rayel B. Jenkins, Dr. Edmund W. Littlefield, Thomas C. Peck, and Herman D. Ryus.

#### County Hospital Nurses Graduate

Thirty two nurses graduated in the hospital chapel and became registered nurses June 7th. The class was the second largest in the last twenty-five years. It was the twenty-fifth anniversary of the founding of the hospital training school. A total of 478 registered nurses have since graduated.

#### Narcotic Clinic

Health Commissioner, L. M. Powers, was allowed by the finance committee of the City Council two additional doctors to assist handling the work of the narcotic clinic in the Temple Block. Salary is to be \$100.00 per month.

#### Maternity Cottage

The dedication of the new building at 127 South Utah Street took place June 27th. The maternity was founded during the panic of 1907. At that time the wife of a bank clerk involved in the financial break was the first patient. Three thousand babies were born during the thirteen years. The majority of the patients were wives of laboring men. Now there are no poor laborers but the wives of the small salaried men, bank clerks, teachers, etc., are obliged to take refuge in the cottage. Those who are able to pay are charged from \$2.00 to \$3.00 per day. There is a salvage shop at 1322 East First street connected with the Maternity for which contributions of furniture and clothing are needed.

A mortgage of \$8000.00 stands against the new building which cost \$21,900.00.

The association hopes gifts will clear the indebtedness. Checks may be sent to Mrs. Baurhyte, 1033 Edgeware road, and to Mr. R. M. Galbreth at the Citizens National Bank.

At the annual meeting last Wednesday other officers elected with Mrs. Baurhyte were: Mrs. Mary Berryman, Vice president; Dr. Anna Chapin, recording secretary; Mrs. Emma Foss, corresponding secretary; R. Morgan Galbreth, treasurer; Mrs. C. C. Wright, assistant treasurer; Mrs. A. S. McKeveit, auditor, and Dr. S. S. Barnard, Dr. C. Salisbury, Dr. H. Shepherd, George Cortelyou and Mrs. John D. Fredericks, directors.

#### Arrowhead Hospital

Arrowhead Hospital of the U. S. Public Health Service was opened June 15th for the care of soldiers, sailors and marines.

One hundred and four beds are now ready. It has not yet been decided whether to have portable wards or more permanent buildings for 1000 beds.

Dr. George Parcher is in charge of the steam caves and hot mineral springs.

Mrs. Katherine L. Llewellyn, assistant director of the American Red Cross in the U. S. Public Health Service, will have charge of the entertainment and welfare features of the hospital work.

Arrowhead is going to be a convalescent hospital. Dr. W. L. Moore was the first of Dr. Parcher's staff to arrive.

The government has leased the place and has an option to purchase it within five years.

#### ORANGE COUNTY

The July meeting of the Orange County Medical Society was held in the chapel of the County

Hospital. There was a good attendance of members. The paper of the evening was read by Dr. R. A. Cushman. The doctor's paper was historical and dealt with the treatment of peritonitis about a century ago. Without a warning of any kind and with every one expecting to hear something up to date, the essay started off with a full description of the tongue as an index of disease, and it was not until he reached the point where he was extolling the virtues of cupping and blood-letting that the audience woke up to the fact that the essayist was reveling in ancient history. The paper was well received and discussed from the viewpoint of comparing the treatment of a century or more ago with that of to-day. The doctor read a part of the life history of one of his ancestors, Dr. Pilocarpus Cushman, and displayed to the society his pestle and mortar, lancet and cupping instruments which came to America on one of the voyages of the Mayflower. Reports of the Santa Barbara meeting were given by Doctors Crawford, Wehrley and Johnston.

#### SAN FRANCISCO COUNTY

The 1st of July the personnel of the Emergency Hospital surgical staff was changed. The Central Emergency Hospital has not been changed; three of the old surgeons were retained for duty at this hospital. The Park and Harbor Hospitals are in charge of the House Officers from the San Francisco Hospitals. These house officers are licensed men, all of whom have had training in emergency surgery. Edmund Butler, chief surgeon, is in charge of all hospitals and operative work. The Potrero Hospital has been closed and its district covered by Mission ambulance.

#### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held on Friday evening, June 11th, at the Hotel Lincoln, President C. F. English presiding. Those present were: Drs. C. F. English, R. T. McGurk, C. R. Harry, Minerva Goodman, C. D. Holliger, W. C. Adams, Grace McCoskey, Mary Taylor, L. Dozier, J. D. Dameron, F. S. Marnell, J. P. Martin, W. F. Priestly, Hudson Smythe, A. E. Edgerton, B. J. Powell, E. A. Arthur, J. T. Davidson, D. R. Powell and the following guests: Dr. V. Pleth of Sonora, Major Berle and Major Oliver of the United States Army Medical Staff at the Letterman General Hospital, San Francisco.

The Committee on Admissions reported favorably upon the application of Dr. G. J. Vischi and Dr. Roscoe N. Gray. Upon a motion duly made and seconded, report of the committee was unanimously adopted and the above named doctors declared duly elected members of the Society.

As there were no cases to be presented, the speaker of the evening, Major H. R. Oliver, was presented. He spoke on "Intraspinal Treatment of Cerebrospinal Lues." He cited experiments and cases to prove that there was greater penetration of arsenic when preceded by injection of blood serum and the method of treatment advocated by Dr. Oliver is to use an intraspinal injection of blood serum six hours preceding the intravenous salvarsan. The results have been very gratifying and far more successful than the other forms of treatment of the Cerebrospinal condition. The paper was discussed by Major Berle and by several of the members present. Following the discussion the meeting adjourned to enjoy a social hour and light refreshments.

#### TULARE-KINGS COUNTY

The regular meeting of the Tulare Medical Society was held Sunday evening, June 20th, at Hotel Johnson, Visalia. After dinner Dr. Eugene S. Kilgore as the guest of the evening gave a thorough discussion of Functional Cardiac Irregularities as met in general practice. He gave



many valuable suggestions regarding these quite common disturbances emphasizing the perverted physiology underlying.

A resolution protesting against the general use of lay anesthetists was passed unanimously.

Next meeting to be in October.

At the April meeting a revised fee bill was adopted placing the fees in this county on about the same basis as those of Fresno and other adjoining counties.

## Clinical Department

Physicians are invited to send in comment, suggestions, questions or similar experiences, in connection with any report appearing in this column. Unless advised to the contrary, the name of the writer will appear with each contribution.

### CASE 2 FOR DIAGNOSIS

By J. TRACY MELVIN, M. D., Porterville, Calif.

Availing myself of your invitation to submit for discussion clinical cases that puzzle, I would submit the following:

**Case History.**—Girl, age 9, weight 80. Parents and four sisters living and well. Three years ago had repeated attacks of tonsillitis and tonsils were removed. Six months later had scarlet fever mild. No nephritic symptoms followed.

One year ago attack of pyelitis. Temperature 103, pulse 130, few red cells, colon bacillus found. Pus disappeared in four weeks; no blood or albumin since. B. P. 100-60, pulse remained 110. Urinary output since has fluctuated from 24 to 72 ozs. per day, last three months tending to more frequent higher quantity. Temperature normal a. m., to 99 and 101 5 p. m.

Von Pirquet and intra-cutaneous O. T. negative. Wassermann negative. Six months ago patient was somewhat choreic and has been kept quiet with long periods of absolute confinement to bed. Tires very easily, although disposed to be active as far as permitted. Sleeps well. Appetite fair, bowels regular.

One month ago had a moderate attack of chicken pox without much effect on the clinical picture. Has had several attacks of erythema nodosum lasting about two weeks each, recently. The urinary output will stand for several days near the lower figures and then, without any special change in symptoms, suddenly change to the higher for several days and as abruptly drop again.

No cardiac hypertrophy or murmurs.

I recall three similar cases in my experience which went to a fatal termination, one from broncho-pneumonia and two from uremia.

**Editorial Comment:** One would be strongly inclined to the opinion that this child has some obscure focus of infection. This would explain the chorea and erythema nodosum. If the tonsils have been thoroughly removed, the teeth and urinary tracts should be investigated as to the possibility of their being the source of bacterial invasion.

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS

CASE NO. 8

March 3, 1916.

B. M., male, American, two days of age.

**Complaint:**—Bleeding from the cord.

**Family History:**—Father living and well. Mother living, is in general "poor health" and at present in puerperal state. One sister living and well, aged 18 years. One brother living and well, aged 17 months. Two children died, one aged 8 months of "teething"? and the other at age of 4 years, cause unknown. One miscarriage at 3 months, 3 years ago, from an accident. All the living children nursed 12 months and also the child who died at the age of 4 years. The other child was nursed until the time of death. There is no history of

tuberculosis or directly of lues. No history of bleeding in any of the other children, nor in the family on the mother's side.

**Past History and Present Illness:**—Full-term and normal delivery. Birth weight 8½ pounds. The mother's milk came in rapidly and copiously. Baby was born February 25, 1916.

No abnormality was noted at birth and the baby cried lustily. At 1 A. M., February 28th, the mother noticed blood on the binder. The hospital was notified and the physician called, who brought the baby to the hospital at 2:30 A. M. When seen there was capillary oozing from the base of the cord. A tight band with gauze pad was applied but had to be replaced in an hour. In another hour an adrenalin soaked band was applied but was of no avail. At 7 A. M. kephalin was secured and applied under a very tight bandage. Temperature was normal at entry.

**Physical Examination:**—Well developed, apparently full term baby, beginning to show the effects of hemorrhage, although still crying vigorously. Head good shape, fontanelles and sutures normal, no tenseness. No neck rigidity. Skin slightly pale, lips pale and slightly cyanotic. Mucosae pale. Eyes, ears, nose negative. Chest good shape, no mammary distention. No ecchymoses or purpuric areas. Lungs expanded well. No pathological dullness and no rales. Heart dullness normal. Sounds foetal, slightly more so than normal, rapid, sinus arrhythmia marked. Pulse rapid but of fair volume. Abdomen symmetrical. Liver edge palpable 2 cm. below the costal margin. Spleen just palpable. Cord moist, darkened, at its base oozing blood constantly, with no signs of coagulation. No definite bleeding point. Skin surrounding cord not inflamed. No telangiectases. No purpuric areas on abdomen. Genitalia normal. Extremities normal, no ecchymoses, no bullae.

**Laboratory Findings:**—Wassermann in Father's Blood Serum + + +

Wassermann in Mother's Blood Serum—Negative. Wassermann 5 months previous also negative.)

Wassermann in Patient's Blood Serum—Negative.

Blood Determination for Coagulation Factors - Clotting time 70 minutes. Recalcified blood 105+ minutes; Cholaemia + + + Antithrombin—Normal. Von Pirquet on left arm - 24 hours: Human 0, Bovine 0, Control 0; 48 hours: Human 0, Bovine 0, Control 0.

Blood picture shows the leucocytosis of a severe anemia.

**February 28:**—A kephalin application failed to control the hemorrhage. At 5 P. M. the bandage was again soaked, and was re-enforced. The baby is showing the effects of hemorrhage.

10 P. M. There is extreme pallor, the mucosae are practically bloodless and the heart sounds weakening. The breathing is spasmodic. The whole condition in fact is desperate. 10 cc citrated blood given into the buttocks, venous puncture being unsuccessful. 75 cc. of normal salt solution were also given subcutaneously in the pectoral region. Kephalin bandage replaced. There was some improvement but slight.

11 P. M. The baby again looks desperately and 8 cc. blood given into the longitudinal sinus.

**February 29:**—The father arrived at 1 A. M. and a larger syringe was secured and 35 cc. of his blood citrated was given into the longitudinal sinus. The baby is now breathing more easily and while still extremely pale, is slightly improved. It is difficult to maintain the body heat. The last kephalin pressure bandage has served so far to allay the cord hemorrhage. A slight subconjunctival hemorrhage in the right eye at the nasal side, appeared last evening but there have been no hemorrhages from any of the mucous surfaces.

2:30 A. M. Bleeding has apparently been checked.

8:30 A. M. The baby looks much better, is breathing quietly and the heart sounds are much stronger. Bleeding from the cord is slight if any (the dressing was not disturbed.) The baby has continued to improve very rapidly in appearance now the hemorrhage has ceased.

**March 1:**—6 cc. of blood withdrawn for determination of coagulation factors shows:

Clotting time (Oxalated plasma)—18 minutes (Prothrombin).

Clotting time (Control)—7 minutes.

Clotting time (Recalcified plasma) Normal.

Clotting time (Recalcified plasma control)—Normal.

**March 3:**—No further cord hemorrhage has occurred, but there is still occult blood in the stools.

**Résumé**—Baby boy M., aged 2 days, entered the hospital at 2:30 A. M. on February 28th bleeding from the umbilicus for 1½ hours, blood having first been noticed in the binder at 1 A. M. The family history is entirely negative as regards bleeding or any chronic infection. The child was full term and delivered after a normal pregnancy and labor—nothing abnormal had been noted for the first 28 hours of life. The bleeding then set in.

At entry there were already some signs of hemorrhage, pallor, and some weakness. The cord was oozing blood from its base—it had not yet separated. Pressure bandages both alone and with adrenalin failed to control the hemorrhage. A kephalin bandage served to check it slightly. Examination of the blood ten hours after entry showed an extreme deficiency, almost absence of prothrombin. Thirteen hours after entry the bandage was again soaked with blood and the baby was showing much more severely the effects of hemorrhage. Five hours later the baby was in such desperate condition that 10 cc. of citrated whole blood were given into the buttocks, together with 75 cc. salt solution hypodermically. In another hour 8 cc. whole blood were injected into the longitudinal sinus, and a final injection into the same area made 2½ hours after that of 35 cc. of whole blood. Undoubtedly if citrated blood had been given earlier the bleeding would have stopped much sooner. The bleeding was then apparently checked. Examination of the blood 36 hours later showed a normal prothrombin content. The baby rapidly recuperated and 5 days after entry was discharged in very good condition.

Wassermanns on the baby and mother were negative, on the father there was a triple positive reaction. Blood culture on the baby was negative—his blood picture was of a secondary anemia. Occult blood was present in the stools, but at no time was there macroscopic bleeding from the intestines or other mucous surfaces. A small conjunctival hemorrhage appeared shortly after entry, but was rapidly clearing at time of discharge. The urine contained no blood.

The question which cannot be answered in this case is whether the injections of whole blood controlled the hemorrhage, or whether they simply supported the child until spontaneous cessation of the hemorrhage could occur, the usual proceeding in untreated milder cases. The influence of the positive Wassermann reaction in the father is problematic in view of the negative reaction in the mother.

**March 3:**—Discharged.

**Diagnosis:**—Hemorrhagic Disease of the New-born.

**Condition:**—Improved.

**Treatment:**—Kephalin locally.

Citrated Blood.

1. 10 cc. intramuscular.

2. 43 cc. longitudinal sinus.

## Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

**FORMITOL TABLETS.** In a report of the Council on Pharmacy and Chemistry it was stated that Formitol Tablets of the E. L. Patch Company contained formaldehyd (or paraformaldehyd) and some hexamethylenamin, and that the formaldehyd (or paraformaldehyd) had been produced by the decomposition of the hexamethylenamin originally present in the tablets. The Council now reports that the Patch Company declares that no hexamethylenamin is used in the manufacture and that, therefore, that which was found must have been produced from the formaldehyd and ammonium chlorid in the tablets. The Council further reports that a printed sheet received from the Patch Company conveyed the information that Formitol Tablets contained ammonium chlorid, benzoic acid, citric acid, guaiac, hyoseyanus, menthol, paraformaldehyd and tannic acid, but gave no information as to the amounts of any of the ingredients except that each tablet was declared to represent 10 minims of a 1 per cent. formaldehyd solution. Because of the non-quantitative and, therefore, meaningless "formula" the A. M. A. Chemical Laboratory made an analysis of the tablets. The analysis indicated that the combined weight of all the claimed active ingredients is less than one grain per tablet. Formitol Tablets furnish a good illustration of some well-established truths: (1) "Formulas" that are non-quantitative are valueless or worse than valueless. (2) The fact that a manufacturer puts certain drugs in a mixture is no proof that these drugs are there when the mixture reaches the patient. (3) Complex mixtures should be avoided. It is absurd to expect, as is claimed in the case of Formitol Tablets, anodyne, antiseptic, astringent, expectorant and resolvent action, all at the same time (Jour. A. M. A., June 19, 1920, p. 1730).

It pays to advertise. The Council of Pharmacy and Chemistry of the A. M. A. has examined a number of brands of Acetylsalicylic acid (Aspirin) and found them to be fully up to the U. S. P. and in every way equal to the aspirin formerly furnished by the Bayer Company of Germany, and now furnished by their successors. It is not impossible that inferior brands of acetylsalicylic acid are on the market, but this will hold for practically everything and there is no difficulty in obtaining any of the standard brands. However, the public is led to believe by judicious advertising that all aspirin except the Bayer aspirin is impure and may even be largely talcum or some other inert substance, and it is also led to believe that the aspirin Bayer tablets are the only properly made tablets on the market, although no one can assure himself that there is any difficulty to obtain other tablets which disintegrate immediately upon being put into water.

Still, a very large proportion of the public insists upon Bayer's aspirin and Bayer's aspirin tablets, and it behooves the physician to help educate the public and to show that this is a fallacy.

## Medicine Before the Bench

In this column will appear with appropriate comment, from month to month, court decisions



and proceedings affecting the various phases of medical practice, the conduct of hospitals and the enforcement of public health laws.

### Obligations of Physician, Malpractice, Action for Damages

A case that all doctors might study with profit is that of *John W. Hlesler, respondent, v. California Hospital Company, et al.*, appellants. The complaint alleged that both defendants were engaged in the practice of medicine; that the Hospital Company agreed to provide for the plaintiff all the necessary medical and surgical treatment and all necessary medical and hospital service during a certain period; that the doctor assigned by the hospital to the plaintiff's case failed to use ordinary diligence, care and skill in treating the plaintiff, and that by reason of such failure plaintiff's illness progressed unfavorably and he was put to great expense and damaged in the sum of \$5,644.

A trial was held in which these alleged facts were presented and the jury returned a verdict and judgment for \$2500. An appeal was taken from this decision, the appellants contending that certain errors were committed by Judge E. P. Shortall in his instructions to the jury. The instructions which Judge Shortall gave form the basis of the reversal of his decision and the judgment, and hence we quote from the court's instructions paragraphs 5, 6, 9, 10 into which errors crept.

"5. To sustain an action it is not necessary to establish gross culpability; mere evidence of want of proper or ordinary care or attention and advice in the discharge of duty by a physician is sufficient to take the case to the jury.

"6. Civil malpractice may be either active or passive. It is active when a certain course of treatment is adopted and followed which is not sustained by authorities; it is passive when those things in treatment are omitted which should have been done in order to obtain a result approximating to perfectness. . .

"9. As a general rule, he who undertakes for a reward to perform any work is bound to use a degree of diligence, attention, and skill adequate to the performance of his undertaking; that is, to do it according to the rule of the art.

"10. The physician must give proper instructions to his patient how to take care of himself, and what diet to adopt; and in case the physician fails to give these instructions, he is liable for any injury that results from such failure."

The law on the subject of care and skill required of physicians in the treatment of patients is well settled. "A physician and surgeon, by taking charge of a case, impliedly represents that he possesses, and the law places upon him the duty of possessing, that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices, and which is ordinarily regarded by those conversant with the employment as necessary to qualify him to engage in the business of practicing medicine and surgery. Upon consenting to treat a patient, it becomes his duty to use reasonable care and diligence in the exercise of his skill and the applications of his learning to accomplish the purpose for which he was employed. He is under the further obligation to use his best judgment in exercising his skill and applying his knowledge." *Pike v. Honsinger*, 155 N. Y. 209 (63 Am St Rep. 655, 49 N. E. 7621.) "The difficulties and uncertainties in the practice of medicine and surgery are such that no practitioner can be required to guarantee results, and all the law demands is that he bring and apply to the case in hand that degree of skill, care, knowledge, and attention ordinarily possessed and exercised by practitioners of the medical profession under like circumstances." (*Zotereil v. Repp*, 187 Mich. 330 (153 N. W. 695)).

"It is never enough to show that he has not treated his patient in that mode, nor used those measures, which in the opinion of others, even medical men, the case required; because such evidence tends to prove errors of judgment, for which the defendant is not responsible as much as the want of reasonable care and skill, for which he may be responsible" (*Leighton v. Sargent*, 27 N. H. 474 (59 Am. Dec. 388)).

Instruction 5 is to the effect that a physician is liable in damages if he fails to give "proper" advice to his patient. Instruction 10 reiterates this doctrine. Instruction 6 gives the jury to understand that a physician is guilty of malpractice and liable in damages if in treating a patient he fails to do anything necessary to obtain an approximately perfect result. The law, as above stated, does not require that the instructions and advice given by a physician to a patient should be at all events and beyond question "proper," or that his treatment should be certainly such as to obtain an approximately perfect result. It requires only, first, that he shall have the degree of learning and skill ordinarily possessed by physicians of good standing practicing in that locality, and, second, that he shall exercise reasonable and ordinary care and diligence in treating the patient and in applying such learning and skill to the case. The law takes cognizance of human weakness and liability to err in the exercise of reasonable and ordinary care and diligence to avoid error. These instructions require more; they require that the advice given shall be "proper," which implies that no error shall be committed; they require that the physician shall do everything to be done to produce an approximately perfect result; that he guarantees that his treatment shall be that of quality; whereas the law only demands that he use reasonable care to attain such approximate perfection. Instruction 9 declares that the physician is bound to use, and of course to have, a degree of skill "adequate" to the performance of his undertaking; the law requires that he have the degree of skill ordinarily possessed by reputable physicians practicing in that locality. This may or may not be "adequate" to the performance of his undertaking, according to the meaning to be given to the word "undertaking." If it was intended to mean that he undertakes a cure, or to produce a result approximating perfection, as stated in instruction 6, or that he undertakes to use the highest possible degree of skill, the standard is higher than the law requires.

The court below in other instructions stated the rule by which the defendants were bound, accurately and clearly. There is a clear conflict in the instructions. We are unable to determine which set of rules the jury followed. The case of the plaintiff on the merits, at best, is not strong. The judgment is reversed."

This decision was written by Justice Shaw and concurred in by Appellotti, C. J. Richards, J. Sloss, J. Melvin, J. Wilbur, J., and Lorigan, J.

## State Board of Medical Examiners

### Collected Clippings on Medical Law Enforcement

#### "CHIROPRACTIC TREATS NOTHING"

An editorial in the *Covina "Citizen"* under date of February 12, 1920, severely criticizes the Board of Medical Examiners for the arrest of chiropractors charged with practicing without a license. "Chiropractic fits nicely the niche left vacant by all other schools. It treats nothing; it heals nothing."—*Covina "Citizen"*

Los Angeles.—Los Angeles Times, March 31, 1920.

Dr. Silverman is charged with misuse of the mails to defraud in connection with an alleged blood test laboratory.

**"Doctor" James Ward Arrested**

E. C. Watson, alias Dr. James Ward, arrested in New Orleans, charged with passing fictitious checks in many Northern California towns.—San Francisco Bulletin.

**Dr. Frank Thomas Found Guilty**

Dr. Frank Thomas, 72-year-old surgeon of San Francisco, charged with the murder of Rose White of Vallejo, whose body was found in his office November 28, 1919, was found guilty of second degree murder by a jury in Superior Judge Michael Roche's court, April 19, 1920. He faces a prison term of from ten years to life.—San Francisco Call and Post.

**Oakland Chiropractor Found Guilty**

Linden D. McCash, chiropractor, of Oakland was found guilty of violating the Medical Practice Act, and on April 23 sentenced to pay a fine of \$200.00 or serve 100 days.

**Another Law Violator Pleads Guilty**

Pasquale Marini, 230 Capp Street, San Francisco, plead guilty of violating Sec. 17 of the Medical Act and on April 20 paid a fine of \$100.00.

**Collected Clippings in Press****THE FOUNTAIN-HEAD OF CHIROPRACTIC; WHAT OF ITS PRODUCT?**

The Palmer School of Chiropractic advertises itself as "the fountain-head" of chiropractic. The following will give some intimation in regard to the character of the "stream" that comes from it:

The 1920 annual announcement of this school states that students are taught not only "how to act with patients in and out of office" but also "how to successfully advertise." From the beginning, therefore, methods are taught which, from the time of Hippocrates, have been looked on as quackery. It is also stated that the students complete their "freshman," "sophomore," "junior" and "senior" courses in four months each, or altogether in sixteen months. In another place the reader is informed that, in case the student finds it impossible to remain for more than twelve months, the school will, nevertheless, confer on him the degree of D. C. (Doctor of Chiropractic). By remaining at the school six months longer he would be granted an additional degree, that of Ph. C. (Philosopher of Chiropractic), if he got "an A grade on each and every paper submitted."

The statement that a "common school" education is required for admission may mean nothing more than the bare ability to read and write. Granting, however, that it is the equivalent of the eighth grade in the public schools, the professional training, according to the usual methods of calculating standards in general education, would be considered of no higher grade than that of one or one and a half years of high school work. This low entrance qualification is in marked contrast to the requirements for admission to medical schools in which students must have completed a four year high school course and in addition two years of work in a reputable college of arts and sciences, including courses in physics, chemistry and biology.

Another significant statement in this announcement is that a student "may matriculate on any week day." This indicates at once that no intensive course of study is given in this institution such as is required in medical schools. No student entering a medical school a week or more after the opening of any laboratory course (for example, histology, pathology or bacteriology) could possibly be able intelligently to carry on the work in such course because of the large amount of work missed during the previous week's absence.

Evidently, there are no such disagreeable handicaps in the study of chiropractic.

The announcement of this school states that in its "scientific course" the student is required "to attend" (note the exact figures) a total of 4,103 class hours. This would be fifty three hours a week for eighteen months, or eighty hours a week—twelve hours a day—for a calendar year. Education does not depend on the number of hours of instruction, however, so much as on the subject-matter taught and the ability of the instructor to impart knowledge. As a matter of fact, the requirement of actual class-room work in our highest grade medical schools in four college years of from eight to nine months each is only about 4,000 hours. Each class hour, however, presupposes from one to three hours of outside preparation so that, if measured by the claims of this chiropractic college, the total hours required by medical schools would be somewhere between 8,000 to 12,000 hours!

The text-books used also are interesting. In anatomy, the text used is said to be that prepared by Mabel H. Palmer, D. C., Ph. C. (1905), the wife of B. J. Palmer, who is the president of the institution. Court reports in 1910 show that the latter had only a common school education and had never matriculated in any school, college or university, other than a chiropractic college. For those who never had a training in the scientific methods of treating the sick, an attempt to teach others how to do so is equal to "the blind leading the blind." Text-books of their own writing are also used by the teachers in symptomatology, gynecology and chemistry, who likewise have no degrees in medicine. Incidentally, the sale of these text-books adds considerably to the revenue obtained from students.

Speaking of revenue, besides the income from text-books, this institution charges for its twelve or eighteen months' course a "spot cash" sum of \$300—more than a year's tuition last year in any of the highest grade medical schools of the country! If the fee is paid in "deferred payments" it is \$350. If a husband and wife, however, take the course the combined fee "spot cash" is \$375, or, if in "deferred payments," \$450. Reports of inspection of this school show that there are few, if any, all-time teachers. Such few laboratories as the school possesses are reported also to have the barest minimum of equipment. Most of the fees obtained, therefore, must be clear profit. This is in marked contrast with the teaching of scientific medicine in medical schools where the actual average expense of teaching a student each year is more than three times what the student pays in tuition fees!

The low ideals of the leaders of this cult are shown in the report of Mr. Justice Hodgkins of Ontario, issued a few years ago. B. J. Palmer himself is quoted as having stated that bacteriology was the "greatest of all gigantic farces ever invented for ignorance and incompetency" and that "the analysis of blood and urine is of no value." In this same report other leaders of chiropractic deride also the study of *materia medica* and chemistry and state they have "no earthly use for diagnosis." They place themselves, therefore, in direct opposition to Pasteur, Koch, Laveran, Flexner and others whose discoveries during the last half century have revolutionized the practice of medicine and saved countless thousands of lives! No wonder Justice Hodgkins concludes that he could not bring himself "to the point of accepting, as part of the legalized medical provision for the sick, a system which denies the need of diagnosis, refers 95 per cent. of disease to one and the same cause, and turns its back resolutely on all modern medical scientific methods as being founded on nothing and unworthy even to be discussed."



But the teaching in this particular school has further interesting tangents. There is also "The Universal Chiropractors' Association" with headquarters, evidently, at this Palmer School of Chiropractic. At least, B. J. Palmer and Frank W. Elliott, the president and registrar of the Palmer School, are, respectively, the secretary, and the treasurer and business manager of the association. The members of this association—made up largely of graduates of the Palmer School—are promised protection from, and assistance in cases of, prosecution for violating the law in practicing chiropractic. According to the constitution, "The Association, except as herein otherwise provided, shall pay the fine and all costs in all prosecutions, civil or criminal, wherein any member of this class shall be charged in substance with having practiced medicine, surgery, osteopathy, or other method of healing or dealing with the sick or afflicted without a license, or other legal permission, provided such member is in good standing and shall have conformed to the Constitution, By-Laws and all Rules and Regulations of the Association."

The word "class" in this paragraph refers to "active members" who are described as "all chiropractors of good moral character graduated from or holding certificates of attendance from such chiropractic institutions of learning as are recognized by this association and are practicing specific, pure and unadulterated chiropractic without the use of adjuncts, etc."

The constitution and by-laws of the association are printed in a pamphlet of twenty-four pages, including two pages of instructions as to "What to Do If Trouble Starts." Among the fifteen items in these instructions the following are interesting:

"11. Be conservative in your claims and be very careful that the enemy does not send any patient to you that they think will die on your hands or otherwise complicate matters. Do not, unless in a state or province where you are licensed, undertake to handle any so-called contagious diseases."

"13. Have as many friends as possible present at your trial. Do not make any newspaper announcements without consulting your local attorney."

"15. If trouble has not really started, but there are signs of it, let us hear about it by letter."

The graduates of this "school" are said to be practicing in Iowa—the institution's home state—in direct violation of the Medical Practice Act and, according to the above, they are being encouraged to violate the law in other states.

From the foregoing statements it will be seen that the teaching conducted in schools of chiropractic is a menace to education and to public morals as well as to the science of medicine and to rational rules of public health. The conclusions justified by the evidence submitted are as follows:

(a) Leading chiropractors deride or disbelieve in such well known and proved sciences as chemistry, bacteriology and pathology. Their teachings are not based on fact and are refuted by the accomplishments of the great minds in education, research, science and medicine.

(b) Their attitude toward these sciences shows their lack of sympathy for the first essentials in the prevention of epidemics and the regulation of public health.

(c) They declare that education and the ability to make a diagnosis are not essential for the intelligent treatment of human diseases and injuries.

(d) Their schools at most require only a common school education, a training insufficient to permit the student to undertake intelligently any but the most elementary course of study.

(e) Their course of professional (?) instruction is too short to enable the student to obtain a training in the sciences necessary for the intel-

ligent or safe practice of the healing art by any method.

(f) The school teaches and encourages its students to advertise—which they are doing and using the same flagrant methods which have been employed by quacks since the beginning of medicine.

(g) Finally, the leaders of this cult openly urge their graduates to practice chiropractic in violation of the law, and have arranged through the Universal Chiropractors' Association to aid and abet them in such outlawry.—Reprinted from the American Medical Journal, July 3, 1920.

## New Members

Ferrier, Paul A., Pasadena; Anderson, Louis N., Inglewood; Morrison, M. M., Los Angeles; Ryder, B. E., Los Angeles; Rohlfing, R. F., San Dimas; Forester, G. W., Pomona; Wilcox, R. W., Long Beach; Frary, Burdett S., Los Angeles; Montgomery, A. B., Long Beach; Beckett, Wilbur A., Los Angeles; Tebbetts, Herbert E., Whittier; Bailey, Chas. A., Los Angeles; Wright, Frederick L., Oakland; Goldman, Vera S., San Francisco; Martin, Dale L., San Francisco; Boehmer, A. C., Lodi; Grundy, Gordon M., Long Beach; Zumwalt, R. S., San Francisco; King, Marion R., San Francisco; Bell, Geo., Fair Oaks; Haggart, Fred S., Inglewood; Stovall, Leonard, Los Angeles; Horton, J. C., Los Angeles; Frankl, Julius, Los Angeles; Smith, Charline, Los Angeles; Morgan, F. L., Venice; Porter, Giles S., Los Angeles; O'Neal, Robert, Venice; Walker, Robert A., Alhambra; Reynolds, L. G., Los Angeles; Lien, Fred O., Patterson; Levy, Joseph J., Reedley; Gerlach, F. C., San Jose; McGinty, A. T., San Jose; Cook, E. P., San Jose; Wayland, Raymond T., San Jose; Barry, Geo. L., San Jose; Baiocchi, A. J., San Jose; Staub, J. Samuel, San Jose; Howell, Harriett, San Jose; Delaney, Chas. W., San Jose; Todd, H. A., Visalia; Pruett, John F., San Francisco; Stickler, John P., San Francisco; Rehfsch, John M., San Francisco; Kilgore, A. R., San Francisco; Miller, Hiram E., San Francisco; Boyd, E. F., Los Angeles; Nippert, E. F., Los Angeles; Carlin, Hayes, Los Angeles; Hummel, H. G., Los Angeles; Maronde, J. A., Los Angeles; Seligman, Lewis I., Dinuba; Bell, W. L., Oakland, Cal.; Foster, H. E., Berkeley; Sargent, W. H., Oakland; Fanning, John L., Roseville; Gray, Roscoe N., Manteca; Hart, F. R., Pacific Grove.

## Deaths

Hirschfelder, Joseph O. A graduate of University of Leipsic, Germany, 1876. Licensed in California 1877. Died in San Francisco July 4, 1920. Member of the Medical Society, State of California.

Crawford, Joseph G. A graduate of Hahn. Medical College, S. F., 1892. Licensed in California 1892. Died in Sawtelle, Cal., June 5, 1920.

Pauson, Charles A. A graduate of the University of California 1907. Licensed same year. Died June 29, 1920. Was a member of the Medical Society, State of California. Age 38.

Kellogg, D. A. A graduate of Bellevue Medical College 1889. Licensed in California 1895. Died in Sacramento, Cal., June 23, 1920.

Price, T. Linton. A graduate of the Medico-Chirurgical College, Pa., 1897. Licensed in California 1898. Died in Petaluma, Cal., where he had gone to spend a week-end fishing trip. Was 58 years old.

Schmiedel, R. J. A graduate of the California Medical College, Cal., 1899. Licensed in 1899. Died in San Francisco July 9, 1920.

Phelan, Albert Edward. A graduate of Bishops College, Quebec, Canada, 1887. Licensed in California 1888. Died June 5, 1917.

# California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

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Yolo.....Dr. Frances L. Newton, Woodland  
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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVIII

SEPTEMBER, 1920

No. 9

## VOTE NO ON NUMBER 5 THE CHIROPRACTIC INITIATIVE

Certain groups of Chiropractors apparently believe that California can only be won by violence and that the violent will bear away the palm. The campaign for this purpose was outlined in "Fountain News," page 4, Number 34-35, published by the Palmer School of Chiropractic, Davenport, Iowa. We can understand this brazen defiance of law when we read in "Fountain News" that these law-defying chiropractors are "working under instructions from a past master at fighting. Let the legislature make its laws and the Medical Board try to enforce them. *Give Me the Newspaper Space—Give Me Publicity*, and they can have all else, and we will cop the verdicts of the juries."

Does this character of campaign appeal to the people of California? Millions have been recently voted by Los Angeles County and by other counties for education. The Chiropractic Initiative, which will appear as Number Five on the November Ballot, makes a mockery of present educational standards and sets at naught all the ascertained facts concerning health promotion and disease prevention. The bold announcements of Chiropractic Colleges derive their chief persuasion from the cash register. "There's big money in it. People who have failed in other walks of life are making \$5000.00 and upwards." This deplorable commercialism coupled with profound ignorance and blatant quackery present a dangerous combination. It has been demonstrated time and again that the most worthless patent medicine backed by ample advertising will win a great following. Ponzi unchecked would have attained a financial standing greater than the soundest financiers. The Ponzis in the healing art leave many wrecks behind, but as long as they

can flaunt testimonials like fake patent medicines, they will thrive and their dupes will pay the price.

The proposed Chiropractic Initiative Measure which will be presented for vote of the people at the November general election, is loosely drawn and full of ambiguous provisions, which by subtle suggestion seek to lull suspicion as to the dangers that lie hidden in the verbiage.

(1) The members of the Board are not required to be citizens of the State of California. "Each member (of the proposed Board) must have pursued a resident course in a regularly chartered chiropractic school or college and must be a graduate thereof and hold a diploma therefrom." Careful scrutiny of Sec. 1 fails to disclose any requirement as to the length of the course which the prospective Board member must have pursued "in a regular chartered Chiropractic School." The records of the Board of Medical Examiners show many instances where residents of this State have possessed themselves of a diploma issued by the Palmer Chiropractic School of Ottumwa or Davenport, Iowa, the Gregory School of Chiropractic, Oklahoma City, the Carver School of Chiropractic, located in the same city, or other extra-State Chiropractic schools, without leaving the confines of the State of California.

(2) The proposed act does not permit the Board to exercise any supervision over any college or school whose graduates may come before the Board.

(3) There is no mention therein as to the number of examination questions to be propounded to the applicants in the specified subjects of examination, as listed.

(4) Sec. 6—The Secretary is not required to perpetuate a record of each examination.

(5) Sec. 6—No requirement as to the num-



ber of subjects which the examinee must pass at each examination in order to be eligible to subsequent examination. Examinees are permitted under the Chiropractic Initiative—Section 6—Subdivision C—"to receive credit for the branches passed and may without further cost take the examination at a subsequent date on the subjects in which he failed." Thereunder the applicant may take a series of examinations, passing possibly one subject at each examination and finally after nine successive trials, may succeed in passing the nine subjects required.

(6) Sec. 6—The Chiropractor applicant "who shall have pursued a resident course of at least 200 hours in obstetrics and who shall make a grade of 75% in an examination in obstetrics conducted by the Chiropractic Board, is authorized to practice obstetrics under the provisions of this Act." No mention is made where such "resident course" in obstetrics shall be pursued, thus leaving the question of the quality of instruction in obstetrics in doubt.

(7) Sec. 7—This Section permits the Board of Chiropractic Examiners to issue a certificate to practice Chiropractic in California after a practical, clinical, oral examination, following the presentation of "a diploma and proof of having pursued a resident course of at least 1,000 hours in a legally chartered chiropractic school and who shall present affidavits of good moral character," together with the sum of \$25.00.

(8) Sec. 7—There is no requirement that said applicant shall have been a resident of the State of California, nor is there any provision for the determination of the status of the Chiropractic School of which he may be a graduate.

(9) Sec. 8—Subdivision C, provides for the issuance of a license to practice Chiropractic "to any person who shall have practiced Chiropractic for six years, two of which shall have been in this State immediately preceding the date upon which this Act takes effect and who, PRESENTS HIS DIPLOMA AS PROOF of having pursued a resident course in a legally chartered Chiropractic School or college and proof of good moral character. . . ." No mention is made that the applicant will be required to show a specific course of instruction completed prior to the issuance of his diploma. Instances are of record with the Board of Medical Examiners where diplomas of chiropractic schools located in middle western states have been issued to residents of the State of California by representatives of such chiropractic schools, who, during a brief visit to California, have alleged to conduct a lecture course of not more than two weeks' duration.

(10) Sec. 9—Subdivision B, does not require that notification of revocation of a specific license be filed with the County Clerk; hence arises the difficulty in preventing practice on the part of one whose certificate has been revoked.

(11) Sec. 11 provides that the Chiropractic Licensee, among other things, "may diagnose and use such natural agencies as water, food, heat, electricity, manual and mechanical means and manipulations, as auxiliaries to their practice under the provisions of this Act." This clause disclosed

the insincerity of those interested in the Chiropractic Initiative, who publicly proclaim their desire to obtain the right to practice Chiropractic, *per se*, but herein are disclosed as intent on securing the privilege of embracing the entire range of drugless therapy.

The present Medical Practice Act provides the conditions under which a "Drugless Practitioner" Certificate may be issued and further defines that such certificate permits the practice of Chiropractic, which is but one of the 27 systems of Drugless Healing. Chiropractic is based upon the theory that all ailments to which flesh may be heir are due to pressure on spinal nerves, as they emerge from the openings in the spinal column of the human being. The Chiropractor claims to have devised a system of manipulating or adjusting the bones of the spinal column which may be diagnosed as the cause of the pressure, which gives rise to a specific complaint. The true Chiropractor makes his adjustments with his hand and gives his treatments by use of his hands only, protesting vehemently against "mixing" the treatment (see Palmer Chiropractic School and Ratledge Chiropractic School), by use of such unessential and unnecessary adjuncts as water, electricity, etc., mentioned in the Chiropractic Initiative.

(12) Sec. 13—Provides a penalty for practicing Chiropractic "without first complying with the provisions of this Act." Confusion unbounded will arise in the attempt to determine whether a specific individual should be charged with violating the provisions of the present Medical Practice Act or whether he properly should be charged with violation of the Chiropractic Act, owing to the fact that the Chiropractic Initiative permits one licensed thereunder to practice not alone Chiropractic, but in addition thereto, to practice hydro-therapy, helio-therapy, electro-therapy, mechano-therapy, manual-therapy and many others of the twenty-seven varieties of drugless healing.

Evidence indicates that the Chinese Herb Doctors expect to be licensed under the provisions of the Chiropractic Initiative. In a recent published and distributed list of names, headed "Members of the State Chiropractic Society of California," in the first column appears the name "G. S. Chan," which name appears on prior lists sent out by the California State Chiropractic Society, in one instance noting: "Dr. G. S. Chan brought in his check for \$25.00 in response to the S. O. S. Call."

G. S. Chan, a Chinese Herbalist of Los Angeles, has frequently been prosecuted for violation of the Medical Practice Act. Page 16 of the 1918 Annual Report of the Board of Medical Examiners shows in the Report of the Legal Department: "G. S. Chan, guilty, \$25.00 or 100 days—Fine paid." Dr. G. S. Chan no doubt expects to obtain a certificate under the Chiropractic Initiative.

Apparently preparing for the Chiropractic millennium, which will follow the adoption of the Chiropractic Initiative, the Pacific Chiropractic College has just been incorporated in the city of Los Angeles with a capital stock of Five Hundred Thousand Dollars (\$500,000.00). According to

its articles of incorporation, it proposes to teach practically all known and unknown sciences. Among the hundred or more subjects noted are materia medica, gynecology, otology, urology, pathology and syphilis. How they will teach some of these chiropractically is not stated. The "Fountain News" says, "California is now busted wide-open." Ponzi made a mistake in starting in Massachusetts. He should have come to California.

Vote No on Number 5 and inform all your friends to do likewise. Educational standards in California must be maintained for the protection of the public health.

#### RUNNERS! HAVE YOU MET THEM?

"Runners" is a name sometimes applied to certain types of individuals who are out to make money, and who are not particularly concerned with the honesty of their methods.

One type of runner is the person who accompanies the workman injured in the industries, and poses as his friend, countryman, representative, interpreter, or the like. The runner pretends to be interested only in the return of the injured man to health. As a matter of fact these persons are often most concerned with the compensation end of the case and it is hardly possible to learn just how much of a given settlement goes to the injured man and how much to "his friend," the runner.

Every means may be used to exaggerate, to prolong, or to falsely impute the origin of, the disease or disability. They work for lump-sum settlements, the return of the patient to his native land, and the like. One runner recently made a proposition to a member of the State Society, to the effect, that should the physician change the report of his findings in a suitable manner, instead of the patient's being returned to work with dispatch, a cash settlement of some \$3200 might be obtained! This runner has been suspected of fraudulent practices by many doctors and insurance carriers for some time; he is at present under investigation by the Industrial Accident Commissions of two states.

It is but seldom that the fraud is gross or clumsy. It is with some frequency, however, that a runner takes an injured man in tow from the time of accident until final settlement of the case; and, during the period of medical observation and treatment, he may seriously handicap the obtaining of accurate and true histories, and the institution of proper treatment. If a given examiner's report does not favor the scheme of these men, they approach numerous others for newer examinations, until they may be possessed of the desired data.

The injured man has full right to the aid of any person he may see fit to choose, to look after his interests; with the proviso, that the representative be honest in his dealings. Accident Commissions and Insurance Carriers are making their own special studies of the fraudulent runner. What should be the attitude of the physician? The doctor should avoid undue familiarity with runners. He should tell them very little concerning the status of the injured man. He should

not allow them to be present during his examinations, excepting when they are absolutely necessary as interpreters (if there be suspicion, an uninterested interpreter may be secured from proper sources). A physician should extend the ethics of his more private practice to the insurance type of case; he should consult his professional brothers who have already examined the case, before making his observations and reports. Surely, all should search for the facts and nothing but the facts.

Force the runner's issue. If he is not pleased with your findings express your willingness to consult with a physician of his choosing. If such consultation results in disagreement, let a third physician agreeable to both examiners make observations and join in a final consultation.

These remarks are a message to be on guard. The warning may suggest many methods of dealing with the problem. What has been your experience with these men?

#### THE THERAPEUTIC USE OF OXYGEN

Oxygen has been used in the treatment of disease for many years, both for empirical as well as for theoretical reasons. Its use has been decried by some on the ground that the partial pressure of oxygen in the alveolar air could not be increased, that the saturation of the hemoglobin was accomplished as fully at a lower pressure as at a higher, and that the presence of stronger oxygen concentrations in the alveolar air, if such were possible, would result in acute local irritation and inflammation. It has been said further, that even if there were some transitory benefit from oxygen administration, its effects were not lasting and the outcome was in no degree changed.

It is a matter of clinical experience that in pneumonias associated with cyanosis, oxygen administered even by the ordinary cone method, is attended and followed by relief of dyspnea, improved color, and mental relief in many cases. A recent paper by Rudolf<sup>1</sup> refers to the important work of Meltzer and others on the therapeutic use of oxygen, and shows conclusively that oxygen is of value "whenever a state of anoxemia exists." Such a state, for instance is found in mountain sickness, sickness due to altitude in flying machines, in poisoning by CO, nitrites and war gases. It is similarly of value in cyanosis from any cause as in certain pneumonias.

Rudolf properly condemns the ordinary cone method of administering oxygen as being wasteful and ineffective. He recommends the use of a small soft nasal tube through one nostril, the other nostril being rhythmically compressed during inspiration, and the mouth remaining closed. The use of an oxygen chamber is only possible on a large scale and at considerable expense. Rudolf quotes Meakins<sup>2</sup> who shows that the normal arterial blood is nearly 5 per cent. undersaturated with oxygen, while in pneumonia the "undersaturation" may amount to nearly 18 per cent. By giving oxygen with the Haldane apparatus he was able to increase the oxygenation in pneumonia to a point even above the normal.

1. Am. J. Med. Sci., July, 1920.

2. Brit. Med. Jour., Feb. 6, 1920.



### REASONS FOR ERRORS IN DIAGNOSIS.

Doubtless the medical giants of a generation ago were as prolific in errors as the leaders of the present day in medical practice. And yet, out of their wonderfully vigorous personalities and out of their forceful, incisive teachings, we can with profit glean sheaves of scientific method whose value time can never decrease. Out of many, two facts come to mind as of outstanding merit in the diagnosis. These two, perhaps, represented the acme of the qualities and attainments of the older school whose names have come down to us in a cloud of respect, affection and admiration. These two facts are, first, their power of independent reasoning and judgment, and second, their power of observation. For accurate diagnosis, these two methods are worthy of all emulation and cultivation. Conscious, purposeful thinking and clearly defined judgment on the facts presented, must lie at the basis of consistently good diagnosis. Those facts must be adequate, and good observation will usually make them adequate.

It was said epigrammatically in the flu epidemic that out of ten patients, three would recover with no care, five more would recover with good nursing, one more would recover with good doctoring, and the last would die in spite of all. So in diagnosis, we can impress a truth by saying that of ten patients, three will be diagnosed correctly with careless methods, five more with good observation, analysis and judgment, one more by the aid of special refinements of laboratory technique and the last will resist all endeavors toward correct diagnosis.

High living and low thinking are not conducive to good observation or good judgment. A successful purse will not arise from a sow's ear. Training and native aptitude are prerequisite and one important purpose of pre-medical courses should be to eliminate students unfitted for the medical art. Blind adherence to the dicta of authority will not make a diagnostician. Independent and thorough observation and analysis are the foundation stone.

Lack of adequate observation means inattentive routine of examination. It means incomplete history. Many affections can be accurately diagnosed from the history alone. It is good practice to endeavor to make a tentative diagnosis from the history alone, and check this up by the evidences obtained through other methods. No printed form avails for either history or examination. A routine must be used but it must be flexible to permit adaptation to the individual patient.

While laboratory examinations are of the utmost importance, and in many cases provide the only conclusive diagnostic evidence, in the majority laboratory returns are of value only as a confirmation or disputation of other findings. Good judgment in the interpretation of laboratory results is of paramount necessity. Independent reasoning and routine thorough elucidation of all data concerned, will go far to simplifying diagnosis.

It is important to remember that many cases

are not susceptible of complete diagnosis and it should never be felt that there is an impulsive necessity for making a sharp diagnosis on every patient. It is wiser to go no further than the data assembled actually justify.

Good diagnostic ability, therefore, does not require unusual skill or genius. Neither a Sherlock Holmes nor an inspired prophet is necessary. Careful thorough examination and observation, together with independent purposeful reasoning and judgment, these are the essentials and these essentials are within the reach of every doctor of average training and ability.

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### Editorial Comment

There is reported the enactment in Alabama of a law requiring all males to undergo examination by licensed physicians to determine if venereal disease is present, before such persons apply for a license to marry. Wisconsin has a similar statute.

It is most gratifying to read, as reported in another column, that the State Board of Medical Examiners has decided to discontinue the practice of permitting foreign candidates for licensure, to take the written examination in their native language. As advocated previously in the Journal, all candidates should take the same examination and this should be in English only. The medical profession as well as the patriotic and public-spirited public will heartily commend this change.

In a recent issue of the Survey appeared a lucubration signed by one who would appear as the Eddyite Committee on Publication for New York. In this effusion is the following statement, "Christian Science can and does heal cancer." There are doubtless persons who are deluded by such trash. Such wild claims simply show the need for sane, lucid, exposition of the truths of sanitary and other medical science, and the education of the entire people in a knowledge of the principles of healthful and wholesome living.

Says the Illinois Medical Journal: "The strength of Christian Science in America may prove as great a conundrum as the age-long mystery 'how old is Ann?' True, the few who profess a belief in this theory are very noisy and active. But that the association is numerically strong is ridiculous to presume. Activities of the followers of Mrs. Eddy remind us of the story of the man who made a bargain for the sale of a million frogs. Finally he produced only ten frogs. When asked why he did not deliver the remainder he remarked 'ten is all I have.' 'But,' said the purchaser, 'you told me you had a million.' To this the frog owner replied, 'I judged so because of the noise they made.'"

How refreshingly amusing to read of the "Los Angeles Osteopathic Surgical Society." Soon there will be an "Osteopathic Medical Society" and then somebody will forget to put in the "osteopathic." And then where will we be? Verily, it

is all a matter of education, and if they have the proper education, they will differ no whit from *real* physicians and surgeons. But isn't it funny, to say the least, that the osteopaths wish legislative sanction and support for their momentous use of the hypodermic needle? If they are osteopaths, they have no use for a hypodermic needle, nor likewise for "medical" and "surgical" societies, and if they are not osteopaths, but physicians and surgeons, then why not relegate "osteopathy" to the limbo of elective theories of therapeutics which a student may select if he is properly prepared and has a broad ground-work in the elementary sciences, in pathology, anatomy, physiology, diagnosis, etc.

The Bulletin of the New York Health Department calls attention to the fact that diminution of smallpox is always followed by a decrease in the practice of vaccination.

"The remarkable effect of vaccination was strikingly shown in Glasgow in 1901-2. That city had prepared an exposition at great expense, and when cases of smallpox began to be reported, realized that if something effective was not done at once the enterprise was doomed to failure. The city corporation, acting under medical advice, accordingly started a great vaccination and revaccination crusade. The entire medical profession of the city was employed in the work, and all who could be induced to submit to the operation were vaccinated. The results were most striking. Starting out with a population of 675,887, which had not recently been vaccinated, the workers within the next 15 months, vaccinated 404,855 persons, leaving only 271,032 who refused to submit to re-inoculation. During this entire period not a case of the disease developed among the revaccinated, while among those not so protected there occurred a total of 1,858 cases."

## Original Articles

### PREHISTORIC TREPHINING OF THE FRONTAL SINUS\*

By FRANK ALBERT BURTON, M. D., San Diego, Cal.

For investigation and study, new and most interesting material has been made available through the establishment of the Museum of Man at San Diego under the direction of Dr. Edgar L. Hewitt, Director of the School of American Research. This rich material of anthropological and surgical interest was obtained through an expedition to Peru sent by the School of American Research. The expedition was conducted by Dr. A. Hrdlicka of the Smithsonian Institute. The material was carefully gathered from the ruins and ancient cemeteries.

While studying the nasal accessory sinuses of the skulls in the Museum I came across one of undoubted trephining of the frontal sinus. This gave the incentive, and a careful search through the entire collection resulted in finding two more with trephine openings into the frontal sinus.

\*Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

The study of these specimens, as well as the review of the literature, was most interesting to me and believing it would interest you accounts for this paper today.

In presenting this subject, I realize that I am asking you to consider something of the dim and misty past rather than following the usual habit of this section of considering advances of the present. I make no claims of authority on prehistoric trephining. I am convinced that many factors connected with this practice are problematical only and must, from the nature of things remain with uncertain solution. To modern minds, benefiting by knowledge revealed, there is a tendency to forget the wonderful achievements, under great difficulties, of those of ancient days. In reading the history of medicine one should not be content to learn only of modern medicine and surgery or even in going back to and including the wonderful scientific period of the Renaissance; but it should be remembered that prehistoric man, as well as man of antiquity, figure in the accumulated knowledge of today.

According to Parry, by prehistoric man the main theories of disease were:

The anger of disaffected spirits. Witchcraft. Offended spirits of dead persons. For the early man, who believed so thoroughly in possession by demons, and who suffered from convulsive fits or excruciating head pains, it was perfectly natural to believe, as he did, that at such times a devil possessed him and was trying hard to make his escape. When the pain in the head was unbearable he believed that the disaffected spirit was trying to make his exit at this particular point and called for the assistance of his fellow man to help release this devil who was boring his way out through the skull.

Broca, brain surgeon and founder of modern French School of Anthropology, seems to have believed that prehistoric trephining was done principally for convulsions, simple or epileptic.

Robert Fletcher reviewed the literature to 1882 and concluded in part that: The large number of perforated neolithic crania exhibiting cicatrized edges establishes the existence of a custom of trephining. That the purpose is doubtful but, from analogy, would seem to have been for the relief of disease of brain, injury of skull, epilepsy or convulsions. That the operation was probably performed by scraping; possibly by a series of punctures. That it was likely the first was employed for children and the latter for the harder skulls of adults.

Certain authorities believe that a religious rite accounts for some of the trepanations.

No doubt in a large per cent. of those trephined for depressed fracture of the skull an anesthetic was unnecessary as the concussion from their stone implement of war causing the fracture as well as the effects from the fracture compression was sufficient, if operation were done at once, to obliterate the pain sense. In the literature I have found no mention of the use of an anesthetic prior to the tenth century A. D. but prob-



ably alcohol or herbs having a desensitizing effect were in use at the time in question. The stoicism of the Indian, coupled with his burning desire to get rid of his devil, no doubt insured co-operation. Those recovering from the operation were recognized as heroes. When a person died, upon whom trephining had been done, it is believed his skull was in great demand. There is evidence that the rim of the trephined opening was removed and divided into several pieces having healed edges and that each piece was perforated and suspended round the neck as an amulet to defend the wearer against the disease for which the dead was operated upon.

The first skull of this kind to which the attention of scientists was drawn was discovered by M. Prunieres in the year 1868 in a dolmen near Agieres. Since this date many specimens have been found and much written upon this most fascinating subject.

Probably MacCurdy of Yale University, who reviewed the subject in 1918, best gives the present views. He concluded that: "Trepanation was seldom resorted to for the purpose of removing diseased bone. That in 28 per cent. of the cases it was to relieve depressed fracture, while in a large majority of the instances the operation itself obliterated all trace of its cause, or else the cause was not of such nature as to effect the osseous system." To brain surgeons, for some time, prehistoric trephining has been an absorbing field of study. But as far as I know the reports up to date have been of no special interest to the rhinologist. A careful review of the literature indicates that specimens of prehistoric trephining of the frontal sinus have not yet been reported.

Wonderful strides have been made but it is interesting to note that there has been less than a century of investigation into man's antiquity, and intensive investigation covers but a generation or so. Probably in a surgical way the most interesting thing that has been brought to light is prehistoric trephining.

The best modern authorities first mistook true specimens for openings made in the skull by violence or disease. It remained for a noted American anthropologist, E. G. Squier, to produce, in 1886, the key specimen through which the scientific world came to truly grasp the fact of prehistoric trephining. This specimen was found in an ancient cemetery in Peru, and later exhibited in Paris. Broca agreed with other authorities that "the specimen was undoubtedly one of prehistoric trephining as the opening could have been made in no other way (Mitchell). In previous specimens there had been an element of doubt as to whether they were unquestionable examples of trephining. A view of an illustration of Squier's specimen is herewith presented.

It should be remembered that the neolithic, or late stone age, in Europe, dates farther back than that of Peru, where Indians are known to have used stone implements of war in comparatively recent years. The San Diego Museum has one trephined neolithic skull discovered at Lovosice, Bohemia, by Prof. I. Woldrick, who collected

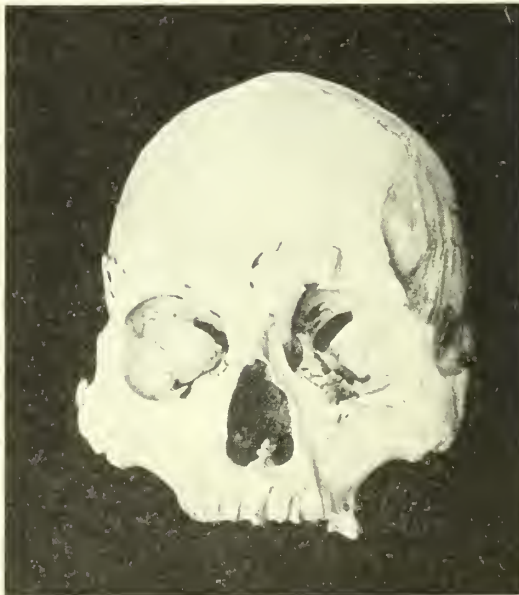
skulls in Bohemia in 1913 for the Panama-California Exposition. The hole is through the right fronto-parietal. This specimen is partly fossilized and much older than the Peruvian skulls.

Of the several hundred specimens now available for study a large per cent. came from Peru where the art, obviously, had reached considerable popularity and had been fraught with no meager degree of success as testified by the number of cicatrized skull openings showing recovery from the operation and healing of the bony wound. Specimens have also been found in France, Russia, Austria, Poland, Bohemia, Italy, Portugal, and the Island of Teneriffe as well as in Bolivia and Mexico.

The openings were made in several different bones of the skull but according to the literature



First Specimen (254, Cinco Cerros, Peru). Surgically and Pathologically Interesting.



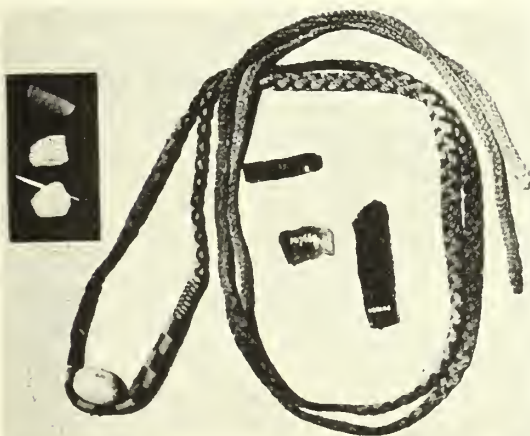
Second Specimen (288, Cinco Cerros, Peru).



Third Specimen (74, Huacho, Peru).



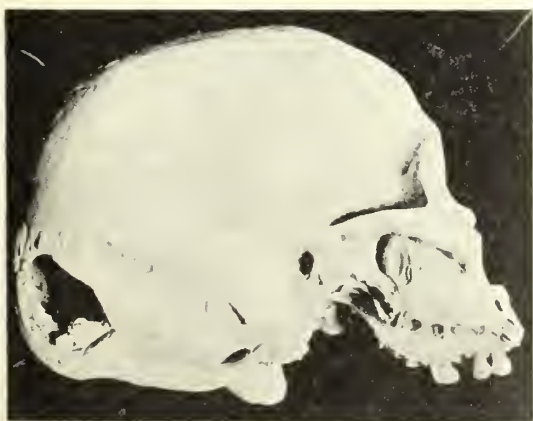
658. Lomas, Peru. Prehistoric Bandaging. From 1200 to 2000 Years Old.



Prehistoric Sling and Surgical Trephining Instruments.



Squier's Specimen.



Amulet Partly Removed.

the parietals were most often chosen. Of the sixty-three specimens in the San Diego Museum thirty-six are of the parietals—the right and left about equal. Assuming that any large per cent. of these were done to relieve depressed fracture from the stone hammer, and that the majority of the population were right-handed, the left side of the skull anteriorly and the right side posteriorly, would have been the points of attack. There are about an equal number of trephine openings on each side of the skull. This suggests that what fractures there were in the collection were largely produced by stones thrown by hand or sling.

It is said comparatively few trephine openings below the hair margin have been found. In the San Diego collection there are twenty-one tre-



phined frontal bones, ten of which are below the hair margin. Of the twenty-three posterior trepanations, eleven are on the right side and all are of the posterior aspect of the parietals, except three of the occipital—one of which shows an amulet partly removed. (See illustration.) Of the entire collection about one-fourth of the trephine openings show healed edges. The subjects having the frontal sinus trephining were Incas and it is estimated that they lived somewhere from 1200 to 2000 years ago.

To exhibit and report these specimens is the purpose of this paper.

In the first specimen I wish to report there is a complete irregular perforation 23 mm. by 44 mm. through the left frontal bone. From the lower border of this perforation there is an extension downward removing the outer plate of the frontal sinus. This extension is 20 mm. broad above; 19 mm. from above downward, with due regard to saving the superior border of the orbit. Obviously, the operation in this case was done with flint or obsidian. The entire scraped area, including the perforation, is 63 mm. by 76 mm.—this is exclusive of about 10 mm. of the lower portion of the sinus exposure. There is a perforation through the inter-frontal septum but whether this is part of the operation I am not in a position to say. That this Indian recovered from the operation is indicated by the healed margins of the trepanation wound. This skull shows no erosion to suggest syphilis. The irregular surface, and the general appearance of the inside of the sinus, suggest that there was an osteitis. To determine the pathology, because of which pain resulted, is impossible. It may be that the trepanation was done to relieve a depressed fracture and the infection resulted subsequent to the operation. This theory has its appeal. Possibly the perforation of the inter-frontal septum was in some way done posthumous. To my mind there seems reason to believe that there was, in this case, extreme pain in the frontal sinus and that this pain was due to empyema of the sinus and a trephine operation through the outer wall was done; that some time subsequently an abscess of the frontal lobe developed and a second trepanation was performed. That the sinus involvement was the primary lesion is indicated by the bone pathology, the partial filling of the sinus with osteophytes, and the thickened healed margins of the trephine wound. No doubt the operator uncovered the sinus and scraped the hole through the frontal bone to provide a point of escape for the evil spirit. This was probably one of the few cases of that time, in which the medicine man saw the devil (pus) make his exit. No doubt, how-

ever, he was not looking for this visible devil and failed to recognize him.

The second specimen is of the left frontal sinus obviously done with flint or volcanic glass saw. This is evidenced by the shape and dimensions of the bony wound as well as marks and cross marks showing the slipping of the saw. Among points of interest in this specimen, suggesting possible knowledge, are well chosen place of entrance of the sinus, and success, despite the depth of the groove necessary to perforate the outer wall. The fact that trepanation, through a convex surface, was done by sawing and with such primitive saws, of necessity, meant a long, tedious, painful procedure and would surely have been abandoned by one without a determined purpose. At the bottom of the groove there are three openings into the frontal sinus—one 1 mm. by 2 mm., another 3 mm. by 8 mm., another 3 mm. by 9 mm. The purpose of the operation cannot be known but it seems reasonable to suppose that the pain in this region of the skull was unbearable and that the sufferer believed that a disaffected spirit was trying his hardest to make good his escape, and that the trephining was done to allow him to come through. One can only conjecture as to the probable pathology in this case. But it is not improbable that the "disaffected spirit" was empyema or some form of inflammation of the frontal sinus. Evidently this patient did not survive the operation long as the edges of the bony wound show no healing whatsoever.

The third specimen is the work of a skillful, conservative surgeon. It is of the right frontal sinus, doubtless done by scraping with sharp chips of flint or obsidian. The remaining irregular opening is 7 mm. in length by 2 mm. in breadth, while the entire scraped area is 15 mm. by 27 mm. The bone has a normal appearance. That the patient made a splendid recovery is evidenced by the healed edges of the perforation.

The skill displayed in the trepanations indicate a knowledge of anatomy. Possibly the communal cemetery contributed to this knowledge. It is known that ancient Peruvians were successful embalmers—indicating that they were familiar with preservatives. They did surgical bandaging—the San Diego Museum has one excellent example.

In each frontal sinus trepanation the operator spared the upper border of the orbit and thereby protected the pulley of the superior oblique.

Through the review of the literature and study of the specimens in the San Diego Museum one seems justified in assuming that in Peru, from 1200 to 2000 years ago, there lived and flourished specialists in trephining who had won prominence for themselves and popularity for their specialty. Patients probably came from afar to these leading specialists, as the majority of the Peruvian specimens have been found within a narrow radius. So once again "there is nothing new under the sun"—even including sinus specialists and sinus surgery.

404 Watts Building.

ECLAMPSIA WITH SEVENTY CONVULSIONS; RECOVERY.<sup>3</sup>

BY ALFRED BAKER SPALDING, M. D., San Francisco.

Eclampsia affects the liver, kidneys, brain and lungs so differently and to such varying degrees that the laboratory findings may vary, regardless of the apparent seriousness of the attack and the clinical picture may suddenly become very grave in the seemingly convalescing patient. On the contrary, patients considered moribund, with vital organs barely functioning may gradually or quite quickly restore themselves to normal. Probably no symptom of eclampsia gives rise to so much worry on the one hand or raises such false hopes so frequently on the other hand as does the symptom of convulsions.

Convulsions, which give to the disease its name, may be looked upon as an indicator of the seriousness of the attack, for in general the number of convulsions is parallel with the severity of the disease. Nevertheless, a severe case may have only one or very few convulsions, which are soon followed by the death of the patient, or, on the other hand, patients may recover after having had a large number of convulsive seizures. These facts make the prognosis in the individual case most uncertain throughout the entire course of the disease.

The average mortality for all eclamptic patients is in the neighborhood of 25%, although in some exceptionally well conducted and well equipped clinics the mortality has been as low as 6%. And while the greatest number of fatal cases seems to be with patients who have had from eleven to fifteen convulsions, nevertheless E. Zweifel,<sup>1</sup> in a review of the literature, found ten fatal cases reported without any or with only one convulsion. He also found several reports where the patient had recovered after having had seventy or more convulsions.

Patients with seventy or more convulsions are extremely rare. From a careful search of the literature I have found only one case reported in the American literature and only sixteen reported cases in the foreign literature. Cragin in his text book on Obstetrics, states that in one case as many as eighty convulsions occurred, but he is not clear as to whether this patient was confined under his care or is a comment from the literature. In reporting the incidence of eclampsia at the Sloane Hospital for Women, he states that amongst 20,000 consecutive deliveries there were 251 cases of eclampsia. Of the patients who recovered in this group only one had as many as 31 convulsions. In other American text books on Obstetrics no mention of personal experience with cases of eclampsia having more than seventy convulsions is made. Townsend<sup>2</sup> in a study of 160 cases of eclampsia occurring at the Boston Lying-in Hospital and in the private practice of members of the Obstetrical Society of Boston reports a mortality of 28%. The number of convulsions

varied from one to twenty-five. Trimble<sup>3</sup> reports the statistics, as obtained from eighteen physicians in the management of 7759 labors in private practice. In this group there were 65 cases of eclampsia; one patient having as many as 63 convulsions. He quotes Carpentier as follows: "Patients having from one to ten convulsions, have a mortality of 25%; having from ten to twenty convulsions, have a mortality of 33%; having from twenty to fifty convulsions, have a mortality of 50%." Esch<sup>4</sup> found only one patient who had had more than seventy convulsions amongst 496 cases of eclampsia in the Berlin Women's Clinic. Amongst 118 cases of eclampsia at the University of Munich, reported by Seitz,<sup>5</sup> there were no patients who had had seventy or more convulsions. Lichtenstein<sup>6</sup> reports 400 cases of eclampsia occurring in the Leipzig Women's Clinic from 1900 to 1910, amongst 14,836 confinements. Four of these had more than seventy convulsions, of whom three died. Glockner<sup>7</sup> reports one case with 74 convulsions amongst 134 cases of eclampsia at the Leipzig University Women's Clinic. Of 403 cases of eclampsia reported by Von Goldake,<sup>8</sup> 200 reported by Duhrssen,<sup>5</sup> and 137 reported by Screiber,<sup>5</sup> the greatest number of convulsions in any one case was 42. From these statistics it will be seen that amongst 1624 cases of eclampsia, where the number of convulsions had been noted, there were only six, or including Cragin's doubtful case, seven patients who had seventy or more convulsions. An incidence of less than one-half of one per cent.

The following is a list of reported cases of eclampsia where the patient had seventy or more convulsions:

1. Glockner 7	74 convulsions	Recovered
2. Barret & Harger 8	75 convulsions	Recovered
3. Purslow 9	80 convulsions	Died
4. Lichtenstein 10	81 convulsions	Died
5. Rosenstein 5	82 convulsions	Recovered
6. Ahlfeld 5	82 convulsions	Recovered
7. Loeffler 13	87 convulsions	Died
8. Kopetsch 5	88 convulsions	Died
9. Lichtenstein 10	91 convulsions	Died
10. Depaul 12	95 convulsions	Recovered
11. Ohlshausen 5	104 convulsions	Died
12. Esch 4	146 convulsions	Recovered
13. Englemann 13	200 convulsions	Died
14. Jardine 14	207 convulsions	Recovered
15. Lichtenstein 10	265 convulsions	Recovered
16. Aale 15	500 convulsions	Recovered
17. Lichtenstein 10	593 convulsions	Died

In this group of seventeen reported cases of eclampsia with seventy or more convulsions, eight patients died which gives, with the present case report a total mortality of 44½%. Considering only the eleven cases with less than 100 convulsions, it will be seen that the mortality is only 27% or the usual expected mortality for the disease. On the other hand, of seven cases having more than 100 convulsions, five died, giving a mortality for this group of 71%.

In view of the fact that so few cases of eclampsia, with seventy or more convulsions, have been reported in the literature, it seems worth while to present the following case report:

Mrs. C. Age 23 years. Nullipara. Second time pregnant. Was married in 1917. In June 1918 she had a spontaneous abortion at the second month. The October following she had an attack

<sup>3</sup> Read before the Forty-ninth Annual Meeting of the Medical Society, State of California, Santa Barbara, May, 1920.



of burning urination with pus in the urine and a temperature of 104. Was treated for pyelitis, with douches and bladder irrigations for a period of two months. Menstruation was normal except for severe headaches at the onset of flow. The last menstruation began on January 17, 1919. She had moderate nausea and vomiting during the months of February and March. Felt life about the first of May. Examination on August 29, 1919, showed a physically normal young woman, with a somewhat childish demeanor, which may be accounted for by the fact that she had been carefully protected throughout childhood, her education being largely along musical lines. The blood pressure was 130 systolic. The fundus measured 25 cm. above the symphysis; the fetal heart was strong in the right lower quadrant. Presentation was O. R. P. The pelvis was normal. The breasts were of moderate size. There was profuse purulent discharge from the cervix. The urine was normal except for a few pus cells. As she lived in a distant village she did not report again until September 18. At that time her blood pressure was again 130 systolic. On October 6 the blood pressure was 140, and the urine contained a moderate trace of albumin. The fundus measured 32 cm. and the presenting part had settled to the spines. On October 11 she was given castor oil and quinine because of the fact that the child had apparently reached full development and the urine contained some albumin. This failed to induce labor pains.

On October 17 she had a severe headache with nausea which was repeated on October 23. These symptoms were not reported as they were of the same character as her menstrual headaches which she considered normal. On October 26 the blood pressure was 159 systolic and the fundus measured 33 cm. She entered Stanford University Hospital at 6:30 a. m. on October 27 complaining of a slight chill, with severe headache and nausea. Labor pains had been noted since 6 a. m. She was given chloral hydrate gr. XV at 7:10 a. m. and aspirin with soda bicarbonate at 7:30 a. m. for her headache and for severe pain in the pit of her stomach which caused vomiting. A rectal examination at 8:15 a. m. showed the cervix to be dilated two cm. While attempting to take the blood pressure the patient vomited and had a severe general eclamptic convulsion. The temperature was 97, pulse 72, respirations 18. She was given morphine sulphate gr.  $\frac{1}{4}$ ; the room was darkened; ears plugged with cotton and she was prepared for operation. A catheterized specimen of the urine gave a heavy cloud of albumin, 1020 sp. gr., acid, many small hyaline casts, few leucocytes and many red blood cells. No sugar.

At 9:30 a. m. she was delivered by abdominal Caesarean Section of a boy baby weighing seven pounds and 10 ounces. The second, third and fourth convulsions occurred on the day of the delivery at 2:15 p. m., 7:05 p. m. and 9:35 p. m. The patient was rational for awhile at 4 p. m. Pulse 124 and respiration from 12 to 16 per minute. A lumbar puncture at 7:10 p. m. showed over 200 mm. of pressure. The blood pressure was 120 systolic and 100 diastolic. At midnight, six ounces of urine were obtained by catheter showing 1024 sp. gr. acid, heavy cloud of albumin with many hyaline and granular casts and a few red blood cells.

Treatment consisted in having absolute quiet in a darkened room and the administration of morphine, chloral hydrate, sodium bromide, sodium bicarbonate, magnesium sulphate, oxygen and 24 oz. of water by rectum.

During the first day post partum the patient remained unconscious, perspiring at times and apparently sleeping. Convulsions occurred at 3:15 a. m., 5:20 a. m., 7:40 a. m., 8:20 a. m., 10:30 a. m., 9:00 p. m. and at midnight, bringing the

total to eleven convulsions. The pulse varied from 120 to 160, the temperature was 101, and the respirations were 19 per minute. Eighteen ounces of urine were obtained by catheter. There were six defecations.

Treatment consisted in a single small dose of morphine, chloral hydrate, sodium bromide, asafoetida, caffeine, sodium benzoate, magnesium sulphate, and croton oil, and one electric hot pack. Twenty-four ounces of water were given by rectum, sixteen ounces by mouth and one thousand cc. by hypodermoclysis.

On the second day the patient had convulsions at 10:25 a. m., 3:45 p. m., 4:15 p. m., 4:50 p. m., 5:15 p. m., 5:30 p. m., 7:05 p. m. and at 8:05 p. m., raising the total number of convulsions to nineteen. She had seven involuntary stools and passed 34 ounces of urine. The pulse varied from 84 to 120 and the respirations from 16 to 19 per minute. A lumbar puncture at 5 p. m. removing 15 cc. of fluid gave a pressure of 200. Treatment consisted in giving three small doses of morphine, one dose of caffeine sodium benzoate, and oxygen inhalations. 100 cc. of blood were withdrawn at 8:30 p. m. followed by an intravenous infusion of 500 cc. of salt solution. 1500 cc. of salt solution were given by hypodermoclysis, 19 ounces of water and 8 ounces of milk by mouth and 6 ounces of water by rectum.

On the third day convulsions occurred at 12:20 a. m., 12:40 a. m., 6:35 a. m., and 9:00 a. m., bringing the number to twenty-three. It was noticed in the morning that the patient was unable to move the right hand or leg but this was not a persistent condition. At times the eyes were open and staring and the patient sighed frequently. The pulse ran from 98 to 122, the respirations from 16 to 20 and the temperature from 101.6 to 104. The blood pressure in the morning was 155 systolic and 55 diastolic. In the afternoon the systolic pressure was 125 and the diastolic pressure was 60. There were two involuntary stools and thirteen involuntary voidings besides one catheterized specimen of 6 ounces. The urine examination gave 1010 sp. gr., acid, seven grammes of albumin per 1000 cc. by Esbach, one hyaline cast and no blood cells. There was no urobilin or urobilinogen in the urine. There was a faint trace of acetone and diacetic acid. The ammonia showed 0.442 grammes per litre. Treatment consisted in giving  $\frac{3}{4}$  of a grain of morphine in divided doses, atropine and oxygen. Cold compresses were applied to the head and the colon was flushed out with two gallons of salt solution which was followed by 250 cc. of Fisher's solution in the rectum. This was retained but later a second injection of 250 cc. of Fisher's solution was promptly expelled. Nine ounces of water, 11½ ounces milk and 18 ounces of sugar solution were given by mouth and 2500 cc. of salt solution by hypodermoclysis.

On the fourth day convulsions occurred at 10:00 a. m., 11:05 a. m., and 11:25 a. m., bringing the total to 26. A lumbar puncture was done at 12:15 p. m. The blood pressure was 135 systolic and as low as 35 diastolic. The pulse varied from 78 to 105, the respirations from 12 to 20 and the temperature was 98.8. There was one involuntary stool and eight involuntary voidings. Fourteen ounces of urine were obtained by catheter showing 1015 sp. gr. acid, light cloud of albumin, slight trace of acetone, no diacetic acid, many granular, cellular and hyaline casts and a few blood cells. The ammonia was 0.935 grammes per 1000 cc. Treatment consisted in giving several small doses of morphine, crowding sugar solution by mouth as well as giving one hypodermoclysis of 1000 cc.

At 4:00 a. m. on the fifth day the patient passed into a state of status eclampticus having

convulsions on the average of one every six minutes until 9:00 a. m., raising the total number of convulsions to seventy. During this time the pulse rose from 97 to 170 and the patient apparently was moribund. A spinal puncture was done and morphine, atropine and caffeine administered hypodermically. At 8:20 a. m., 300 cc. of blood were withdrawn from a vein and one cc. of ergot was given intramuscularly which was later repeated by one 2 cc. dose. Throughout the day 4% solution of soda bicarbonate was given by nasal gavage in large amounts and 500 cc. of Fisher's solution was given by rectum. Towards evening the patient began to perspire profusely and had evidence of beginning oedema of the lungs. Mustard packs were applied to the chest and back and atropine administered. A blood count at 8:45 p. m. showed 2,590,000 red cells, 50% haemoglobin, 15,600 white cells with 91% polymorphonuclears. At 11:00 a. m. the blood pressure was 100 systolic and 50 diastolic, at 6:00 p. m. the systolic pressure was 135 and the diastolic pressure 45. The temperature was 103.2, respiration 22 and pulse 142 at 8:00 p. m. The next day constant moving of the lips began which could not be controlled. There was considerable cough and numerous moist rales in the chest. A second attack of oedema of the lungs developed during the night of the sixth day and throughout the seventh day, with temperature of 103, pulse 150, and respirations 38. This attack was treated with digitalis and mustard plasters to back and chest. The temperature however, gradually fell to normal on the eleventh day but rose to 104 again on the sixteenth day, then gradually came to normal on the twentieth day post partum. The pulse continued high until the twentieth day when it fell to 90 per minute. The respirations continued at 30 or above until the twentieth day when they became normal. On the seventh day the patient began to suck her lower lip constantly until it became very much swollen. Lumbar puncture was done which showed less than one leucocyte per cm., and was harmless to guinea pigs when injected into the peritoneal cavity. On the eighth day she spoke several unintelligible sentences and began picking at the bed clothes and picking her nose. On the ninth day there was constant humming of old songs and on the tenth day she seemed to recognize her husband and father. On the eleventh day she became very delirious, trying to get out of bed, etc., which condition continued until the fifteenth day when she became quite rational although her mental condition remained unstable. On the twenty-eighth day, according to the Binet-Simon scale her mentality was that of a child of from 10 to 11 years of age with partial agraphia. Treatment consisted largely in the administration of sedatives, carbohydrates and alkalies. The urine was normal after the fourteenth day except for a large number of pus cells. The abdominal stitches were removed on the twelfth day with primary healing. The patient left the hospital on the thirty-ninth day in about the same mental condition as was noted for pregnancy. The baby was gaining on bottle feeding.

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## THE SURGICAL TREATMENT OF ACUTE OTITIS MEDIA IN CHILDREN, WITH REPORT OF FIFTY CONSECUTIVE CASES.\*

J. A. BACHER, M. D., San Francisco.

From the Department of Otolaryngology, Rhinology and Laryngology of the Stanford University Medical Department.

Adenoidectomy coincident with incision of the membrana tympani, even though the membrane has ruptured spontaneously, is not described in the literature or the texts as the surgical treatment of acute purulent otitis media in children. I wish to report fifty consecutive cases that I have so treated in the Ear, Nose and Throat Clinic of the Stanford University Medical Department. I believe that these cases have recovered in fewer days with a smaller percentage of mastoids than they would have if I had not removed the adenoids and incised the membrana. A detailed statement of the duration of these cases may serve as an impetus to discussion of comparative figures. The indications for incision of the membrana tympani are not stated with uniformity and I wish to record my ideas of them.

Heine states that incision of the membrana tympani was first done in the last half of the eighteenth century by Eli, a quack of Paris, for the cure of deafness and that Himly and Cooper in the beginning of the nineteenth century were the first surgeons to perform the operation. They performed it as a cure for deafness. The procedure was soon discarded. Schwartze in 1865 was the first to incise the membrana tympani for the removal of fluid. The indications for this procedure as stated by him have been altered but slightly in the literature to date. He details the indications in serous otitis at length but we are not concerned with that type. In purulent otitis he states that incision is indicated if spontaneous perforation of membrane is delayed, and enlarges upon this by stating that incision is indicated when the membrane is red, dull and lusterless. As late as 1902 Piffi in the proceedings of the German Otological Society very strongly discredited incision of the membrane and believed in waiting for seven or eight days and then incising and performing a mastoidectomy if there was not immediate improvement. In other words he believed that any case extensively enough involved to require an incision of the membrane would require opening of the mastoid whether the incision was made or not. Heine in 1907 makes his indication "If the membrane is locally or generally bulged outward and a slight yellowish

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May 1920.



discoloration points to the presence of secretion behind it; and if, further, fever and severe pain are present." He believes that incision is indicated in spontaneous perforation when there are signs of inefficient drainage.

I think the membrane should be incised when it has ruptured spontaneously and there is pulsation in the fundus, as there practically always is in children. When examination shows a membrane that is uniformly red with the short process of the malleus indistinguishable and there has been evidence of the child's suffering pain, or when there is fever not explainable by other physical findings, or if reliable hearing test reveals great diminution of hearing I believe incision should be made. I find it rather difficult to express in words the exact appearance of the membrane that alone would indicate incision, for one of the three other factors that I have mentioned is nearly always present, but there is a uniform diffuse red swelling that is generally distinguishable from myringitis. If the membrane is partially white and partially red and the malleus can be discerned, or if there is a bleb-like formation of part of the membrane with other parts almost normal in color I do not incise it. In infants, as many of these cases are, all one gets at best is a picture of color in the fundus. One must be sure that he sees the membrane and not the canal wall. Compare it with the membrane of the other ear to get the contour and if it is red and not white and there is fever or pain it should be incised.

In these fifty cases reported my procedure has been to make a long incision with a straight knife in the posterior inferior quadrant. There have been many favored sites for the incision; vertical incisions, Lake, in 1917 favoring a horizontal semi-lunar incision superiorly, claiming that this lets the flap down and secures better drainage. But the partial horizontal position of the membrane in children gives the incision in the posterior inferior quadrant all necessary drainage.

I have the child lying on the table, arms and legs held by one nurse and head by another nurse, unless gas is given, and incise the membrane. With the child lying on its back I remove the adenoid with the La Force basket adenotome. In infants one must use the small Gottstein curette. In using an open curette there is danger of losing the tissue that has been excised. I can generally manipulate the curette so that it holds the adenoid that I have excised astride the blade. But I always hold the wooden tongue depressor back against the posterior pharyngeal wall until I see whether I have the tissue engaged on the curette; and if I have not I keep it from falling down with the tongue blade and so manipulate the blade and the curette as to hook the tissue around the curette and remove it. The child is then at once raised and supported, with its face over a basin. The adenoid comes out very prettily in one large mass with the La Force adenotome and there is surprisingly little hemorrhage. I do not believe in giving a general

anesthetic and removing the tonsils during the acute otitis, but of course, do remove the tonsils as soon as recovery is made. If there is no pus or only serum upon incision I use no treatment until pus appears. If there is pus present I keep it cleaned out with various strengths of alcohol. I have seen all these cases daily except Saturday and Sunday, wiped the pus out, noted whether there was any pulsation and given instructions for more efficient treatment if necessary. As these are all clinic cases they have not generally been cared for at home as thoroughly as private cases are.

There are few figures in the literature as to the duration of the discharge. Dench states that they "*should*" clear up in ten to twenty-one days after the incision. The following are the figures given in a few of the texts and mean, time from appearance of pus to the disappearance of pus:

Phillips, 1916—Three days to six weeks.

Ballenger, 1909—One to three weeks.

Alexander, 1917—Eighteen to twenty-five days.

Kerrison, 1913—Ten days to four weeks.

Bacon, 1902—Few days to ten days.

Herel, 1901—Several weeks.

Grayson, 1902—Two or three weeks.

Packard, 1909—Two or three weeks.

Cradle, 1902—"Rarely less than ten to fifteen days and often three to four weeks."

Tod, 1913—Four to six weeks.

Porter—Few days to two or eight weeks.

Heiman—From two to six weeks.

The variance in these figures is due to the personal equation and I do not think they were all arrived at by actual figures of cases, but rather drawn as general conclusions from the authors' impressions and recollections.

In my fifty cases, the average time from the incision to recovery is eleven days. Allowance must be made that these cases were already discharging for an average of four days before surgical intervention. Of these fifty cases, mastoidectomy was necessary in two, or four per cent. This does not mean that I performed only two mastoidectomies in children during this period; but in all the others that I performed, mastoidectomy was indicated at the first visit. During this series I incised three membranes without obtaining serum or pus and without infecting one of them, watching them till the membrane became normal. This can be safely done if the knife does not touch the canal wall and if no lavage is used. There were fifteen cases in which there was not spontaneous perforation of the membrane. The average duration from the time I incised these membranes until the ears were dry was nine days. I was unable to obtain the parents' consent to do an adenoidectomy in six of the purulent cases. Case forty-nine was well in three days and case thirty-nine in one day. Cases thirty-five and thirty-six were double otitis in an infant of two months. This was the youngest case in the series. This case illustrates the

Case	Age Sex	Days Discharge Before Incision	Days After Bipore Incision	Adenoid ectomy	Larvium Shaved	Days Under Pus	Days Under Inf.	Days Under Dry	Days Under Pus after dry
1	4♂	14		+			0	6	
2	6mas♂	5		0			0	25	
3	8mas♂	14		+			0	15	
4	5♂	5		+			0	14	
5	"	0	1	+	0	0	0	0	
6	8mas♂	1		+			0	14	
7	5♂	14		+	pus		7	16	
8	"	0	1	+	pus		0	5	
9	"	0	1	+	pus		0	8	
10	1♂	7		+			0	7	
11	6mas♂	14		+			0	7	
12	6♂	7		+			0	14	
13	5♂	1	2	+			7	16	
14	8mas♂	4		+			12	21	
15	8♂	21		+			0	6	
16	2♂	0	3	+	pus		0	7	
17	"	0	3	+	pus		1	7	
18	2♂	2		+			0	16	
19	3♂	7		+			0	4	
20	3♂	1		+			0	4	
21	2♂	0	1	0	serum	0	0	1	
22	5mas♂	10		+			0	14	
23	6♂	0	1	+	pus		14	19	
24	2♂	5		+			4	12	
25	"	5		+			4	9	
26	2♂	1		+			1	9	
27	"	1		+			1	14	
28	2♂	0	7	0	serum	1	1	6	
29	1½♂	0	1	+	serum	0	0	1	
30	"	0	1	+	pus		0	6	
31	2♂	3		+			0	33	
32	2♂	12		+			0	9	
33	3♂	0	1	0	0	0	0	0	
34	2♂	0	2	+	pus		4	9	
35	2mas♂	9		+			4	27	
36	"	5		+			0	16	

37	7♂	0	1	0	0	0	0	0	
38	3♂	0	2	0	pus		0	8	
39	"	0	4	+	pus		0	1	
40	2♂	2		0			8	10	
41	1½♂	4		+			0	3	
42	"	1		+			0	4	
43	1♂	1		+	pus		3		25
44	"	0	1	+	serum	1	6	14	
45	2♂	7		+			3	25	
46	6♂	10		+			0	16	
47	4♂	1		+			0	4	
48	"	1		+			0	4	
49	10♂	0	5	+	pus		0	3	
50	3♂	0	1	+	pus		5	9	
51	6♂	0	1	0	serum	1	2	22	
52	3♂	1		0			0	6	
53	2♂	7		+			5	11	

efficacy of my procedures in incising the membrane and removing the adenoid even though there has been spontaneous perforation of the membrane. For one ear had been discharging for five days and was well in sixteen, while the one that had been discharging for nine days was not well until twenty-seven. Case forty-three, even though it had been discharging spontaneously for one day, showed pus, under pressure, enough to fill the canal at the time of the incision. The three cases that showed serum upon incision all showed pus after twenty-four hours.

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HOOKWORM AND AMOEBIASIS IN CALIFORNIA.\*

By C. A. KOFOLD Professor of Zoology, University of California, Berkeley, California

Two diseases of parasitic origin which may be expected to appear in the routine of any physician's practice in California are hookworm and amoebiasis. Both are infections primarily of the digestive tract and may be detected by faecal examination, though their symptoms are exceedingly varied, and, especially in the case of amoebiasis, may give no clue to the location and nature of the infection.

Hookworm infections owe their presence among us to a variety of sources and are mainly importations from the Orient with Chinese, Japanese, Hindu, Korean, and Filipinos who may have entered the State prior to the very efficient guard against this disease by the United States Bureau of Public Health, or may have escaped its scrutiny altogether; or have been passed as clear or cured. Another source of infection is the Mexican and Central American element, and a third rather important one is among immigrants from the endemic area of hookworm in the Southern States.

The most important center of the disease is, however, among the miners of the Mother Lode in Amador County. This had its origin in the early days of the gold mines. The disease was brought here from the infected mines of Europe, and still receives contributions in miners from the Balkan States, Italy, and Spain, and drifts in also from Nevada and other mining regions with migrant labor.

Examinations made in the last two years of 2747 miners from the gold, copper, and quicksilver mines of California revealed 295 cases of infection or 10.8 per cent. This was based on one examination. If more than one had been made the percentage would be somewhat higher.

These infections are among male adult white laborers and employers and are distributed as follows:

	No. Men Examined	No. Men Infected	Per Cent. Infected
Gold mines	2123	278	13.1
Copper mines	441	11	2.5
Quicksilver mines	117	1	0.8
Hetch Hetchy tunnel	66	5	7.6
Total	2747	295	10.8

This infection has in the past been maintained in the mines by imperfect sanitation, careless deposition of faeces of infected men in localities where the wet earth and drainage water becomes contaminated with the larval worms which hatch out

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



from the ova in the stools and live for a year in this infective stage in the soil, contact with which on hands, feet or clothing subjects the person to infection by the larvae which quickly bore through the skin into the blood stream, pass through the heart, lungs and thence to the intestine.

Other centers of infection are in the Oriental agricultural laborers of the central valleys and the concentrated Mexican contingents where sanitation is lax. Examination of 507 Japanese laborers of the Delta region carried on by Dr. Cort, revealed 35 cases of hookworms or 7 per cent., 13 cases of *Ascaris* or 2.5 per cent., 87 cases of *Trichuris*, or 17 per cent., 10 cases of *Clonorchis* or 2 per cent., and nine other infections.

To date only 209 Hindus have been examined, and only six cases of hookworm detected, or 3 per cent., and 33 cases of other worms, or 16 per cent. Examinations of Mexicans included among the miners indicate that some infection exists among them.

Additional evidence of importation of hookworm is shown by the examination of 154 University students with the detection of nine cases of hookworm, or 6 per cent., eight of foreign origin. Among 154 California ex-service men, four cases of hook worm were found, two of foreign origin.

The examinations for hookworm of the miners and Orientals in California, have been made in the Division of Parasitology, Bureau of Communicable Diseases of the California State Board of Health. In this work I have had the able assistance of Professor W. W. Cort, now of the School of Hygiene, Baltimore, and of Field Agent A. M. Bean and of J. D. McDonald in charge of the laboratory work. In the work in the United States Army and in the State Board of Health upon the protozoan infections, I have had the able assistance of Dr. Olive Swezy, Research Assistant in the grant from the Division of Medical Sciences of the National Research Council at Washington.

In the Southern Department of the United States Army, I examined 612 soldiers enlisted from California, and detected 13 cases of hookworm or 2 per cent. These men represented thirteen different counties.

Investigation made by me in the United States Army of the Psychologic Board's ratings of 10,000 men with and without hookworm, revealed the fact that among able-bodied, healthy men hookworm infection was accompanied by an average drop of twenty-seven points, or 22.3 per cent. in mental rating below that attained by men of the same class in whom no infection was detected.

Compilation of the statistics of sick call, hospital record, and death rate in 24,000 men at Camp Bowie, Texas, for six months showed that able-bodied soldiers in whom hookworm was detected were 28 per cent. more times sick, 89 per cent. more days on sick call, and 77 per cent. more times admitted to the hospital than were men in whom hookworm was not detected. Furthermore, in regiments having over 10 per cent. infection by

hookworm the death rate from pneumonia was from 90 to 200 per cent. higher than it was in regiments with less than 10 per cent.

In California, the climatic conditions and general level of sanitary disposal of human faeces are such that hookworm can hardly become widely endemic as in the South, but our exposure to the Orient and Mexico, our deep warm, wet mines, and our irrigated districts all afford favorable conditions for the invasion and perpetuation of the infection among us. By reason of its occupational aspects, its peculiarly deleterious effect upon children, its depletion of industrial efficiency, and its apparent reduction in the resistance to some other diseases, hookworm presents a public health problem of widespread and serious importance to the State.

Of even graver importance to the State as a whole and to every practicing physician in the State of California and to industrial and public health officers, is the infection popularly known as tropical amoebic dysentery. This importance results in the main from the fact that amoebiasis may be neither tropical in occurrence nor dysenteric in its symptoms. We can best understand this infection if we regard it as an age-old and race-wide infection of man, inherited from his primate ancestors and evolved, in common with his other parasitic infections, with humanity itself.

The recent world war mixed up on the western front and elsewhere men from all lands and climes. Close contacts of barracks and trench life multiplied and intermingled their infections and in some instances intensified their virulences. This is especially true of the intestinal infections, for trench life and military movements are not conducive to careful sanitation. Dysenteries start up whenever an army moves, and the plague of flies and contaminated food and water play their part in contributing to the spread of faecal infections and especially intestinal parasites, for the ova of intestinal worms and the cysts of intestinal Protozoa pass unharmed through the digestive tract of the fly and escape all sterilizing action of the chlorination process which so successfully destroys bacteria.

A large part of the men enlisting from this State went overseas, and those who have returned are bringing back into civil population a higher degree of infection by intestinal parasites than they had on enlistment.

Evidence of the degree of increase in these infections appears in the accompanying table based upon the examination of 2300 returned soldiers in Debarkation Hospital No. 3 in New York City made by Kornhauser, Plate, Swezy and myself, and on the results of the examination of 154 ex-soldiers who have been students in the University during the past year.

This table indicates that infections by whipworm have increased at least twelve-fold over those in 501,000 men examined before going overseas. Whipworm infection means nothing else than faecal contamination of food and water, for the infection is acquired by man by eating food

or drinking water contaminated by human faeces.

In like manner it is noteworthy that the percentage of men infected by *Endamoeba dysenteriae* is also higher in men returning from overseas than it was in home service men, being 12.8 per cent. in the former to 4.3 in the latter, a threefold increase.

These data rest upon a single examination in the main. Had six successive examinations been made the percentage of infection by amoebiasis would probably have risen from 12.3 to 35 to 40 per cent. Dobell and Matthews and Smith in England have shown by extensive statistical studies that the first examination reveals only about one-third of the cases of amoebiasis when detected by cysts in the stool.

Examinations made by us in the California State Board of Health during the past year of ex-service men in the University has revealed even a higher percentage of infection. In 154 such men there were 91 overseas, 34 home service and 29 as yet undetermined. The numbers of carriers of amoebiasis in these three groups are 61, 9, and 12 or 67, 26.5, and 41.4 per cent., respectively, or 53 per cent. on an average. Most of the home service men had served in southern camps in the endemic area of amoebiasis.

These percentages are much higher than those detected in New York. This is the result of several factors the precise value of which we are unable to determine. We have made, when necessary, six examinations. There has been some increase in the efficiency of our identifications. The men we have examined were mainly of the Ninety-First Division which saw hard service in the Argonne and on the Belgian front and were

subjected to the maximum exposure to infection at the close of the war. They report the widespread occurrence of dysentery and intestinal disorders during their active service on the front. There is among these overseas men as compared with home service men an increase in the other intestinal parasitic infections, especially of flagellates, other amoebae and *Blastocystis*.

There is thus abundant evidence that the number of carriers of amoebiasis among the civil population of this country has been greatly increased by the return of the overseas men.

Very few of these men are to-day dysenterics. They are, as a rule, carriers, sometimes with slight clinical evidence of depleted health or lowered vitality. They are, however, more dangerous as sources of contagion, than acute dysenterics, for they are discharging almost daily great numbers of cysts. A heavily infected stool may contain as high as 50,000,000 cysts, which are the sole known means of contagion, as the free amoebae die quickly when chilled.

The cysts are killed rather quickly by drying but survive in moisture or water for months. They pass unharmed through the intestine of the fly and are not killed by chlorination of water supplies.

Our investigations have verified some work done by Yorke, Smith and Matthews at the Liverpool School of Tropical Medicine, indicating the spread of the infection in families. It was found by them upon examination that in the case of children infected with amoebiasis, there were no less than 65 per cent. of the adults in the families represented who were carriers of the amoeba of dysentery.

Tabular summary of infections by intestinal parasites in 2300 Overseas and 676 home service troops of the U.S. Army at Debarkation Hospital No. 3, New York City, N.Y.

Cases of Infection																							
Source	Cestoda			Nematoda						Rhizopoda					Flagellata					Misc			
	Total	Negative	Positive	<i>Dibothriocephalus latus</i>	<i>Hymenolepis nana</i>	<i>Taenia saginata</i>	Hookworm	<i>Trichuris trichiura</i>	<i>Ascaris lumbricoides</i>	<i>Endamoeba coli</i>	<i>Endamoeba nana</i>	<i>Endamoeba dysenteriae</i>	<i>Endamoeba gingivalis</i>	<i>Dientamoeba fragilis</i>	<i>Ameba limax</i>	<i>Trichomonas intestinalis</i>	<i>Trichomonas "</i>	<i>Sabadomonas "</i>	<i>Chilomastix meynlii</i>		<i>Giardia intestinalis</i>	<i>Sporozoa</i>	<i>Elastocystis hominis</i>
Overseas	2300	763	1637	0	10	0	160	136	26	473	675	297	1	1	3	3	3	4	97	131	7	784	194
Home Service	676	243	333	1	3	2	22	14	1	92	161	25	1	1	1	3	1	4	20	37	4	181	57
Percentages of Infection																							
Overseas	2300	33.1	66.9	0	0.4	0	6.9	5.9	1.1	20.5	29.3	12.8	0.1	0.1	0.1	0.1	0.2	0.2	4.2	5.7	0.3	34.1	8.4
Home Service	676	42.2	67.8	0.2	0.5	0.3	3.8	2.4	0.2	15.9	27.8	4.3	0.2	0.2	0.2	0.6	0.2	0.7	3.5	6.4	0.7	31.4	9.8
Tabular summary of infections in 91 Overseas and 34 home service troops, and 29 of unknown affiliation.																							
Overseas	91	6	85	0	0	0	1	4	0	44	64	61				1			4	6		66	16
Home Service	34	5	29	0	0	0	1	1	0	10	22	9				2			2	1		19	6
Unknown Status	29	6	23	0	0	1	1	0	0	8	14	12							1			14	1
Percentages of Infection																							
Overseas		6.6	93.4	0	0	0	1.1	4.4	0	48.4	70.3	67.0				1.1			4.4	6.6		71.4	17.5
Home Service		14.7	85.3	0	0	0	2.9	2.9	0	29.1	64.8	26.5				5.8			5.8	2.9		55.3	17.7
Unknown Status		20.7	79.3	0	0	3.4	3.4	0	0	27.6	48.3	41.4							3.4	0		48.3	34.3



From a series of family infections detected by us in California, we cite one as typical. Mr. X, a soldier in the Philippines, returned to California in 1908. He had not treated for dysentery, though reporting occasional attacks of diarrhea. He married, settled down in Modesto, where he lived in a house with modern sanitary conveniences. Stools of two children of the family who were ailing were sent to the Division of Parasitology of the State Board of Health for examination for intestinal worms. Amoebiasis was detected in one of them. On re-examination of the other child and extension of the examination to the parents and other child it was found that the three children and both parents were infected with amoebiasis.

The household contagion of this infection probably spreads from food handling, common towels, the washbowl, and bath tub by faecal contamination.

There is every probability that of the 3,000,000 men overseas a considerable percentage have been infected by the contaminated soil and water of the zone of military operations and the crowded conditions of barracks and trench life and that perhaps 500,000 men are returning to spread to some unknown extent among the members of the households to which they belong the insidious infection.

There is a larger degree of infection in the civil population of California than has hitherto been suspected or detected. Our data are as yet inadequate to be more than tentatively suggested. Cases are constantly coming to our attention where the infection can be traced to tropical or Oriental exposure, but there are not a few others which are purely local in origin.

Examinations of 66 Hindus, on State stools, showed 12 cases or 18 per cent. Infection among Oriental students in the University is relatively very heavy. We may expect that Orientals and travelers from the tropics and the Orient will constantly bring this infection among us.

Infections are relatively heavy among the migratory laborers of this State. In 122 men in the quicksilver mines, mainly from the south of Europe and Mexico we found 49 infections or 40 per cent.

Among 66 laborers in the Hetch Hetchy tunnels we found 19 infections or 28 per cent. These men were largely Americans and from northern Europe. Among such men infection is higher in the bunkhouse than in families. Infected food handlers, unsanitary conditions and the house fly traveling from infected faeces to the kitchen and mess hall is probably responsible for these infections.

As in other communicable diseases such as tuberculosis, diphtheria and typhoid, we have no adequate knowledge of the relative numbers of carriers among seemingly healthy persons. Not a few of the carriers we have detected are seemingly healthy persons, others are under medical care, and only a few are dysenterics. Many report no history of dysentery.

Extensive investigations of the military and civil patients in hospitals during the war have demonstrated as Ravant, the eminent French specialist has said, that amoebiasis is neither tropical nor dysenteric by necessity. It is an insidious infection appearing in acute form as dysentery but may accompany any intestinal disorder, constipation, appendicitis, enterocolitis, or appear in chronic cases as hepatic, pulmonary, or brain abscess, as enlarged spleen resistant to quinine, joint or long bone rheumatism, or as an obscure and rebellious skin infection. It appears to travel in the blood stream from the intestinal ulcers to other seats of infection.

It can be detected in case of intestinal infections which are primary ones and persistent for years after the initial infection, by the intermittent presence of cysts in the stools. There are three common intestinal amoebae, *Endamoeba dysenteriae*, the pathogenic species, *Endamoeba coli*, reported to be non-pathogenic and found only in the lumen of the gut, and *Endolimax buetschlii*, a new amoeba, discovered during the war, the commonest amoeba of man. Careful staining and analysis of the structure and membrane of the nuclei is essential to distinguish these three amoebae.

It is also essential to distinguish them from the spores of intestinal yeast, molds, fungi and flagellates, which may be confusingly similar to the spherical cysts of the dysenteric amoeba in size and appearance.

Stool examination should be a part of the routine of examination in all cases of obscure intestinal trouble, and may be of great service in many instances in physical diagnosis of puzzling diseases.

Dr. James, after long experience with amoebiasis in the tropics, writes as follows:

"The extreme importance of this disease in the tropics is hardly realized by some medical men. The prolonged suffering and lessened efficiency of its victims, its tendency to abscess formations with frequently a fatal termination, its grave prevalence in these countries and its ease of dissemination all combine to make it one of the most serious diseases of the tropic world. Chronic cases specially deserve a great deal of study and treatment until they can be discharged as cured, and certainty of cure is a difficult proposition just because they are so chronic in their course."

#### BASAL METABOLISM IN THYROID DISEASE, AS AN AID TO DIAGNOSIS AND TREATMENT, WITH NOTES ON THE UTILITY OF THE MODIFIED TISSOT APPARATUS.\*

By ALBERT H. ROWE, M. S. M. D., Oakland, Calif.

The minimal metabolic change resulting from the continuous organic functions of the body which are essential to life is termed the basal metabolism. This basal metabolism can be measured by a calorimeter either by the direct estimation of the heat produced in the body, or by calculating the heat

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

production from the amount of oxygen used and the  $\text{CO}_2$  given off as a result of the oxidation going on in the organism.

Though the entire endocrine system and possibly certain substances like amino-acid and creatin, as suggested by Kendall, play an important role in regulating the basal metabolic rate, it is generally accepted that the rate of basal metabolism depends largely upon thyroid activity and that an increase or decrease in the secretion of this gland either elevates or depresses it. Because of this, through calorimetric determinations of this basal metabolism, we can obtain more accurate conceptions of the state of thyroid secretion and thereby diagnose hyper-secretion, normal thyroid activity, or hypo-secretion. The calorimeter, therefore, has taken a position in the diagnosis of thyroid disturbances similar to that of the clinical thermometer in fever or the Wassermann reaction in syphilis and is essential for the intelligent handling of thyroid diseases.

It is fortunate for the diagnosis of thyroid activity that basal metabolism is most commonly increased and decreased by disturbances in the function of this gland, and that a careful analysis of the patient can rule out the other conditions which change the metabolic rate. Other disturbances which elevate basal metabolism are fever, acidosis, lymphatic leukaemia, pernicious anemia, polycythemia, hyperpituitarism, severe diabetes, and cancer, while depression of the rate occurs also in wasting diseases, starvation, and un nourished though controlled diabetics. But none of these causes are productive of marked change in basal metabolism and all can be ruled out in the routine diagnosis.

Certain other tests have been suggested as diagnostic of hyper-thyroidism, notably the blood-sugar tolerance, the epinephrin test as outlined by Goetsch, thyroid feeding, and the nitrogen excretion tests. Recent studies, however, especially those of Smith, Lueders, and Tompkins, Sturges, and Wearn indicate that none of these tests are as dependable as that of basal metabolism in the diagnosis of thyroid disturbances.

Thus the importance of the determination of the basal metabolism in thyroid diseases cannot be over emphasized. By its means, first we can differentiate the neurotic of the "irritable heart" cases from mild or beginning hyperthyroid individuals. Symptoms such as tachycardia, nervousness, slight fever, tremor, exophthalmos, weakness, and many others are explained. The differentiation between early tuberculosis and beginning hyperthyroidism is effected. Secondly, the toxicity of an existing goiter, regardless of type or the severity of an obvious hyperthyroid state can be determined. Thirdly, the effect of roentgen therapy especially, and also of the surgical removal of the thyroid as well as the advisability of operative procedures can best be determined through basal metabolic rate determinations. Finally, the presence and degree of hypothyroidism and myxoedema can be recognized. This test is especially important for guiding thyroid adminis-

tration and removes the possibility of giving thyroid unnecessarily or in excess, thus placing its therapy on a scientific basis.

#### *History of Basal Metabolism in Thyroid Diseases.*

It is impossible in this paper to review the work already accomplished. This has been done in several papers by Scholz, DuBois, and others. We may mention, however, some of the outstanding contributions. Magnus Levy in 1895 was first to demonstrate an increase in respiratory metabolism in hyperthyroidism and a decrease in myxoedema. Hirschlaff in 1899, wrote a most valuable contribution on a severe case where the rate rose to 105% above normal. Von Bergman in 1909, found decreased metabolism in myxoedema and a rise in metabolism after thyroid administration. The most important recent contributions have been those of Dubois and Means.

Up to five years ago, the estimation of basal metabolism was confined to scientific laboratories. Since then through the work of Benedict and Carpenter and many others in Boston, and through the excellent work of Du Bois and his collaborators in New York, the availability of indirect calorimetry for basal metabolism determinations has been demonstrated. Especially the demonstration of Du Bois that the results from the indirect method check up with the results from the most accurate direct methods of measuring heat production has been of incalculable value.

Particularly noteworthy was the monograph by Carpenter in 1915, in which Benedict's universal, the modified Tissot, the Douglas, as well as several other methods of determining the respiratory exchange of man were described and compared. Finally, the description by Benedict in 1918 of a portable respiration apparatus which can be used clinically, and the demonstration by Boothby in the Mayo Clinic of the availability of the modified Tissot apparatus for rapid and extensive clinical studies in thyroid disease, together with clinical articles of Means, McCaskey, Plummer, and Boothby, have impressed the entire medical profession with the possibilities of the clinical value of basal metabolic rate determinations.

#### *The Selection of Apparatus.*

Those who attempt the study of basal metabolism for clinical purposes will probably at present decide on the use of either the Benedict portable respiration apparatus or the so-called Tissot type. The recent paper of Hendry, Carpenter, and Emmes has compared their relative advantages as well as three different breathing appliances. Their conclusions in brief are that when basal metabolism alone, as determined from oxygen consumption is desired, the Benedict portable apparatus is entirely dependable when operated by a careful, well-trained individual. But when information is desired also about the metabolic effect of food or drugs upon an individual, the Tissot type of apparatus with face mask, Haldane, and reliable analyst are necessary.

Benedict and Carpenter both repeatedly state that the Tissot type would be preferred to the



Chart I

## Basal Metabolism in Actual and Suspected Hyperthyroidism.

Case Number	Name	Date	Age	Sex	Height in cm	Weight in kg	Average Pulse	Average Respiration	O <sub>2</sub> given off cc	Cal per hr per kg	Metab Rate	Duration of symp	Symptoms, because of which, patient was referred for investigation	Remarks		
1	G.B.	3/13/20	29	F	169.5	58.7	130	18	176.56	2157.3	0.810	1.050	36.9 ± 0.0	1 yrs	Nervousness, tachycardia	Quiet, drowsy
2	E.A.	3/15/20	57	F	146.3	50.45	124	20	197.64	2677.9	0.730	1.370	49.26 + 4.00	Adenoma of thyroid for 2 1/2 yrs	Typical symptoms of hyperthyroidism	Quiet
5	M.M.	3/18/20	25	F	157	52.9	120	26	156.2	2034.0	0.768	1.094	37.92 + 2.7	1 yr	Marked nervousness, slight tremor, loss of weight, tachycardia.	Quiet
6	K.M.R.	3/18/20	29	F	153.5	49.8	105	17	139.5	163.5	0.854	0.356	32.68 - 11.3	3 yrs.	Marked nervousness, under weight; slight struma of thyroid	Restless
7	J.E.T.	4/2/20	41	F	165.8	44.35	76	13	121.0	176.0	0.688	1.116	33.82 - 8.3	7 mos.	Marked nervousness, sweating, tremor, slight exophthalmos, severe diabetes	Quiet
10a	A.H.	3/24/20	28	F	154.5	49.6	118	18	165.4	201.7	0.822	1.177	40.23 + 9.0	1 yr	(a) Acute onset of typical symptoms of hyperthyroidism. Has had 3 x-ray treatments, the last being 21 rads, with marked improvement resulting	Quiet
10b	A.H.	4/23/20	28	F	154.5	48.65	114	20	163.2	215.0	0.760	1.259	42.2 + 14.3	1 mos	(b) Slight increase in nervousness, tremor, and eye signs	Quiet
11	A.M.	3/24/20	49	F	161.5	53.2	95	20	209.2	246.2	0.850	1.353	46.15 + 2.50	2 yrs	Adenomatous thyroid of 17 yrs duration showing moderate toxic symptoms for 2 yrs	Quiet
14	P.C.	3/27/20	21	F	160.0	54.55	128	20	227.4	288.2	0.789	1.519	53.15 + 4.1	5 mos.	Marked nervousness, tremor, moderate eye signs, tachycardia, sweating.	Quiet
17	M.L.	4/2/20	39	M	166.5	56.6	88	15	246.7	296.5	0.832	1.545	53.2 + 34.0	1 yr follow	Marked nervousness, moderate eye signs, influenza	Quiet
18	E.R.	4/6/20	19	F	162.5	49.4	65	18	150.2	179.2	0.839	1.054	34.54 - 6.4	6 mos.	Symmetrical struma, slight nervousness	Quiet
Case Number	Name	Date	Age	Sex	Height in cm	Weight in kg	Average Pulse	Average Respiration	O <sub>2</sub> given off cc	Cal per hr per kg	Metab Rate	Duration of symp	Symptoms, because of which, patient was referred for investigation	Remarks		
19	R.E.B.	4/6/20	33	F	161.0	52.7	82	16	133.8	176.3	0.760	0.958	32.5 - 11.9	7 yrs	Moderate nervousness, thyroid enlarged for 6-7 yrs	Quiet
20	B.H.	4/8/20	18	F	164.5	56.62	64	14	142.8	193.9	0.737	0.974	34.4 - 6.7	2 yrs	Symmetrical struma, slight nervousness.	Quiet
21	M.T.	4/9/20	34	F	151.0	46.62	75	15	127.3	163.9	0.777	1.007	33.55 - 8.9	10 mos follow	Nervousness, loss of weight, diarrhoea	Quiet
22	G.H.	4/20/20	26	F	158.0	62.54	80	14	148.1	185.2	0.800	0.852	32.85 - 10.97	1 yr.	Tachycardia, moderate nervousness, recent tuberculosis.	Quiet
23	M.W.	4/15/20	23	F	161.0	48.4	135	15	165.3	211.2	0.784	1.250	40.4 + 9.5	1 yr.	Had typical hyperthyroid symptoms, which have been diminished by 17 x-ray treatments.	Quiet
24	R.B.	4/14/20	38	F	170.5	61.3	72	18	193.7	243.4	0.790	0.620	39.99 + 8.4	20 yrs	Large adenomatous thyroid, nervousness, dyspnoea, loss of weight	Quiet
27	C.N.L.	4/16/20	41	M	174.5	60.9	100	14	290.0	366.0	0.793	1.733	60.85 + 5.33	8 mos	Typical symptoms of hyperthyroidism. Able to do light work	Quiet
31	B.G.	4/27/20	46	F	164.0	51.15	74	14	140.4	173.0	0.812	0.977	32.45 - 12.0	1 yr.	Marked nervousness, weakness; moderate exophthalmos	Quiet
32	E.O.	4/23/20	19	F	156.0	57.83	92	16	140.9	204.9	0.688	1.133	38.8 + 5.15	3 yrs	Nervousness, tachycardia, symmetrical struma of thyroid.	Quiet
33	H.B.	4/26/20	34	F	159.0	51.2	79	15	156.2	196.2	0.795	1.103	37.65 + 2.03	2 yrs	Recent tuberculosis, nervousness, moderate tachycardia	Quiet
34	H.S.B.	4/26/20	26	F	167.0	57.25	65	12	139.4	193.8	0.720	0.955	33.45 - 9.0	1 yr.	Exophthalmos, moderate nervousness and tremor	Quiet
35	F.B.	4/29/20	43	M	160.5	51.6	101	24	233.5	335.5	0.696	1.838	62.1 + 56.4	1 yr follow	Typical symptoms of hyperthyroidism. Had influenza, light work, and then less severe in last 6 mos	Quiet
36	D.H.P.	5/1/20	58	F	158.0	54.45	99	22	183.3	255.0	0.719	1.322	46.0 + 12.55	6 mos on "Thyroidin"	Typical symptoms of hyperthyroidism. Has had 6 x-ray treatments	Quiet

portable Benedict type in all cases, were it not for the time-consuming and difficult gas analysis. It is certainly true that three-fourths to one hour's time is required for gas analysis in each case. However, a certain amount of this time is offset by the lack of necessity of setting up the apparatus each day and testing it for leaks. Moreover, by use of a mechanical arm, Boothby has saved much time necessary in the estimation of the oxygen. Also there is no possibility in the Tissot type of burning out the motor, which with care does not occur in the Benedict, but nevertheless is a likely possibility. In regard to the diffi-

culty of gas analysis, Boothby has demonstrated that any intelligent, careful, high school girl can make accurate gas analysis determinations. In fact, the entire procedure can be carried out by some well-trained young woman as well as by the clinician.

Certain other advantages of the Tissot type must be mentioned. If a small leak should occur, it makes little difference in the final result with the Tissot and a great deal with the Benedict. When the latter instrument is used, the respiration rate is abnormal and the CO<sub>2</sub> expired is abnormally high. Thus the determination of the

respiratory quotient is not accurate enough with the Benedict to be advised as routine, whereas, with the Tissot apparatus, respiratory quotients are obtained which, as Carpenter has shown in his monograph of 1915, check up with those obtained with Benedict's universal apparatus. The information in regard to the relative consumption of carbohydrate, protein, and fat in an individual which is thus able to be gained is certainly of value. Moreover, as Carpenter again states, the ability gained in the use of gas analysis extends widely "the field of an investigator on respiration and respiratory exchange," and without it "the field of investigation is very much limited." Finally, the Tissot unit takes up no more room than the Benedict and can be made in a portable form just as easily. The cost of the former is only a little more than that of the latter.

Thus, where only the basal metabolism is desired it means the saving of one hour's time probably to use the portable Benedict apparatus. The writer feels however, that the saving of this amount of time of an assistant who will invariably

be performing the test, does not offset the advantages offered by the Tissot apparatus. Basal metabolism is not going to be determined by every clinician in the community and for those who do equip themselves for this work, is it not better to have an instrument which affords other possibilities of study than just of the oxygen consumption?

I have been interested in basal metabolism, especially in thyroid disease, since 1915, when I came in intimate contact with the work of Du Bois, Joslin, Benedict, and Talbot. The importance of the subject was again impressed on me by Boothby's work as seen at the Mayo Clinic last October and since that time, I have established a respiratory unit of the Tissot type in my metabolic laboratory and with the help of a trained biochemist, Miss Eakin, we have been studying cases of thyroid disease. Through the kindness of Dr. Boothby, I obtained plans of the Tissot spirometer from which the Yager Sheet Metal Company of Oakland constructed an excellent instrument. The Haldane was constructed by myself from glass parts obtained from E. Machlette and Son of New York, who also furnish a well calibrated pipette which on recalibration was found most accurate. The mask and rubber tubing was obtained from H. N. Elmer of Chicago.

In our work, we have consulted the monograph written by Carpenter in 1915, and the very comprehensive instructions as given by Boothby and Sandeford for the use of the modified Tissot unit in an article as yet unpublished. We have installed the spirometer and bed in one-half of a room in an office building, in the other half of which, is my metabolic chemical laboratory.

Rubner has shown that heat production of a body is proportional to its surface area. Thus, the heat production in our work has been calculated in calories per square meter per hour from the oxygen consumption and the respiratory quotient. The body surface has been obtained by the use of the height-weight chart of Du Bois and the figures for normal basal metabolism are those accepted by the Russell Sage workers. The metabolic rates are reported in terms of percentages above and below normal, the normal values ranging between + and - 10%.

#### Results from Cases.

During the last two months, we have studied 24 cases of actual or suspected hyperthyroidism and 8 cases of actual or suspected hypothyroidism, besides several normals, two cases of leukaemia, and several cases of other conditions, such as diabetes. Out of 24 cases of suspected hyperthyroidism, 9 showed metabolic rates of over + 10%. All of these were clinically hyperthyroid, those showing the highest rates being the most pronounced. No extremely severe cases with rates up around + 90%<sup>1</sup> have been seen. The fact that all the cases were suspected of having excessive thyroid secretion shows the necessity of some accurate test, such as that of basal metabolism to aid the clinician in his final diagnosis.

<sup>1</sup> A recent case showed a rate of + 123%.

Chart II

Basal Metabolic Rate in Actual and Suspected Hyperthyroidism

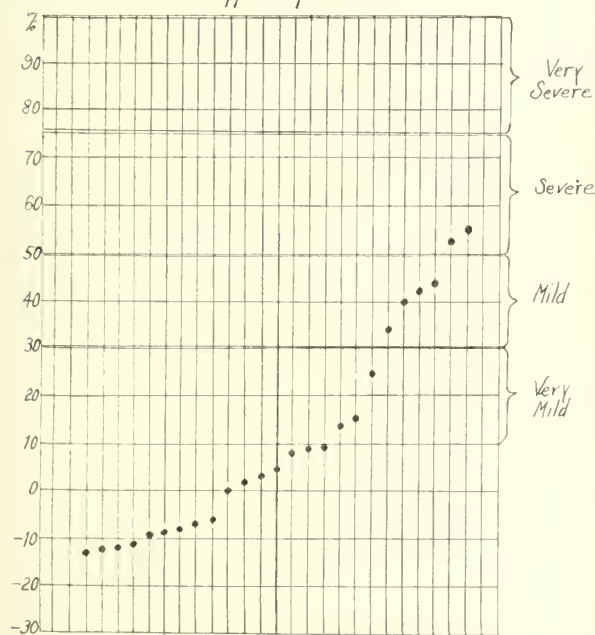


Chart III

Basal Metabolism in Actual and Suspected Hypothyroidism

Case	Name	Sex	Age	Color	Height	Weight	Surface	Temp.	Pulse	Respiration	Cal per hour	Basal Metabolism	Remarks	Diagnosis
3	J. L.	M	40	F	167.5	63.8	30	74	72	18	2842	-10	Over weight	Actual
4	J. A.	M	37	F	155.5	63.5	21	47	114	18	2104	-10	Unimpaired weight, apathy, weakness	Actual
8	J. S.	M	37	F	160.0	73.0	6.5	18	113	185	2107	-30	Obesity, slight mental	Actual
12	J. S.	M	37	F	164.4	81.8	5.8	16	101	135	1841	-75	Obesity, slight mental	Actual
15	J. B.	M	31	F	170.0	88.9	6.4	17	106	155	1754	-67	Obesity, dry, inactive skin	Actual
26	J. P.	M	36	F	163.5	68.4	8.4	14	106	138	1860	-38	Slight increase in weight, pregnant	Actual
28	J. A.	M	49	F	144.5	54.3	7.8	10	127	171	1707	-30	Secondary anemia, relative	Actual
30	J. A.	M	49	F	161.5	69.5	6.6	18	103	124	1789	-24	Obesity, inactive skin	Actual



sis. Undoubtedly, many innocent thyroids are constantly being removed surgically and are receiving X-ray treatment, and this may be obviated by the use of this test. Case 34 with a rate of  $-9\%$  is especially interesting because of the exophthalmos, moderate nervousness, and tremor, which made her physician send her to me with a positive diagnosis of hyperthyroidism. Case 31 with a rate of  $-12\%$  impressed one as being definitely hyperthyroid because of exophthalmos, tremor, and loss of weight. Case 7 with a rate of  $-8.3\%$  had practically all the symptoms of hyperthyroidism. Most of those whose metabolic rates were below  $+10\%$ , probably belong to the so-called neurotic class.

Four adenomatous thyroids were studied, cases 2, 11, 19, and 24, all of which had symptoms suggestive of toxicity, though only two showed such a condition.

The effect of X-ray therapy on the basal metabolic rate and the use of this rate in gauging treatment is well shown in cases 10, 23 and 36. Case 10 was a personal case of the most severe type, which received X-ray treatment before we were ready to estimate her metabolic rate. The first rate determination was  $+9\%$  and clinically, she was greatly improved. After one month, during which no X-ray was given, the rate rose to  $+14\%$  and more X-ray is being administered now with the metabolism studies to gauge its amount. Cases 23 and 36 were both of marked severity, the first having received more roentgen ray than the latter, as indicated by the metabolic rate estimations.

The respiratory quotients show no characteristics of note. Two of the most emaciated hyperthyroid cases, however, yielded very low quotients or, as Carpenter would have us say, combustion indexes, which would indicate the oxidation largely of fat and protein. The other cases of hyperthyroidism were better nourished and had been resting more than the former ones, and the respiratory quotients were higher, indicating a more normal combustion of fat, carbohydrate and protein.

No attempt will be made in this paper to analyze the relation of pulse to metabolic rate as recently suggested by Means.

During our work, eight cases of actual or suspected *hypothyroidism* have been seen. Cases 4, 8 and 28 especially impressed one with this diagnosis, and all showed moderately low rates. Case 4, after having received thyroid therapy of 1 grain twice a day for one month, has at present a metabolic rate of  $+6\%$ , and she is now able to do her work, and is active physically and mentally. In another few weeks, her rate will again be determined, for as Means has shown, basal metabolism may be elevated to a high level by too much thyroid administration without showing any evident symptoms, which fact offers another reason for guiding thyroid therapy by these estimations. Case 30 had been receiving 1 grain of thyroid twice daily for several weeks and thus

with a metabolic rate of  $+4\%$  at present, she probably is a hypothyroid. To make sure of this, we have taken away her medication and we shall re-estimate her rate in about one month.

### Conclusion.

The value of the estimation of basal metabolism as an aid to the intelligent diagnosis and treatment of thyroid disturbances must be realized. The test helps to differentiate the mild hyperthyroid cases from the neurotic and incipient tuberculosis sufferers. It tells us the degree of toxicity of an obvious case of hyperthyroidism, be it associated with a hyperplastic or an adenomatous type of thyroid. The metabolic rate determinations must be the guide of all surgeons who would operate most successfully on toxic goiters. As a safeguard to X-ray therapy, it is already a well recognized necessity. Finally, in diagnosing hypothyroidism in its various degrees and especially in gauging the amount and duration of thyroid administration, basal metabolism has gained a place of great value. Much unnecessary, harmful and unwise thyroid feeding will be obviated if clinicians will administer thyroid only when accurate basal rate determinations indicate it.

We desire to call attention moreover to the desirability of the modified Tissot type of respiration apparatus as an instrument suitable for installation in an office and one which though more time consuming to operate than the portable type of Benedict yields more extensive information and wider possibilities of investigation in respiration study.

### Hutchinson Bldg.

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## Book Reviews

**Blood and Urine Chemistry.** By Gradwohl and Blaivas. Illustrated. Second edition. St. Louis: C. V. Mosby. 1920.

The part of this book that deals with the technique of blood chemistry contains full directions for the determination of sugar, creatinine, creatine, uric acid, urea, non-protein nitrogen, cholesterol, etc. The directions are given in simple detail, but the use of a special laboratory is required.

The second part of the book dealing with urine analysis gives a full treatment of the subject.

The third part of the book deals with blood findings and their interpretation. It contains much information, but would be improved if condensed to about one-quarter size. M. H. L.

**Human Parasitology.** By Damaso Rivas. 715 pp. Illustrated. Philadelphia and London: W. B. Saunders Company. 1920. Price \$8.00.

This book represents the twenty years' experience in parasitology of Doctor Rivas of the University of Pennsylvania. The facts of the subject are brought together in seven hundred pages, briefly enough for a student's text-book and encyclopedic enough for a physician's hand-book.

The book satisfies a great need, now that world commerce and world war have brought back new and strange diseases to the United States. The treatment of the subject is eminently practical. There are full notes on bacteriology, mycology, laboratory diagnosis, hematology and serology, as well as tables of references. M. H. L.

**Home Nursing.** By Abbie Z. Marsh. 268 pages. Illustrated. Philadelphia: P. Blakiston's Son & Co. 1920. Price, \$1.25.

This volume of 268 pages includes the rudiments of hygiene; descriptions of the methods of performing such nursing procedures as are possible for an amateur nurse to attempt; first aid treatment in common accidents and emergencies; simple bandaging; care of infants, small children and the aged; infant feeding; diet in diseases; symptoms of some of the more common diseases. The book contains much information of value to mothers, most of which is very clearly expressed, but like most books of its kind, some portions are too condensed to be easily understood by those who have no previous knowledge of the subjects and had better have been omitted. Nevertheless the book will be a valuable guide for the "home nurse" and for home nursing classes.

**Medical Clinics of North America.** Volume III, Number 6 (Chicago Number, May, 1920). By Chicago Internists. Octavo of 286 pages with 18 illustrations and complete index to Volume III. Philadelphia and London: 1920. Issued serially, one volume every other month. Paper, \$12.00; Cloth, \$16.00 net. Consisting of six numbers per clinic year.

C. L. Mix: Lethargic encephalitis. Mediastinal tumors. A. F. Byfield: Errors in diagnosis. I. A. Abt: Infantile eczema. I. Tumpeer: Schick test. J. E. Dyson: Pyelitis in children. A. K. Germann: High sugar feeding. C. S. Williamson: Lymphosarcoma of the neck. Pernicious anemia with extreme dropsy. S. Strouse: Urticaria and angioneurotic edema. J. G. Carr: Bronchiectasis with pulmonary hemorrhage. Cholelithiasis with chronic jaundice. C. G. Crulee: Colic in the breast-fed infant. P. Bassoe: Abscess of brain. R. Sonnen-schein: Some non-suppurative forms of headache. R. C. Hamill: Cerebrospinal syphilis. Encephalitis. W. W. Hamburger: Differential diagnosis of cardiac and gastro-intestinal lesions, with par-

ticular reference to pectoral and extrapectoral angina. J. C. Friedman: Callous ulcer of stomach. Chronic non-specific enterocolitis. J. H. Hess: Care of premature infants. F. Wright: Hypertension in a woman at menopause. M. Portis: Syphilis of liver simulating gall-stones.

**Sexual Impotence.** By Victor G. Vecki, M. D. San Francisco, California. Sixth edition 12mo of 424 pages. Philadelphia and London: W. B. Saunders Company. 1920. Cloth, \$3.00 net.

One does not realize until he has read this book, the scope and number of conditions leading to sexual impotence. To the casual observer the subject is very limited, but to the keen observer of Dr. Vecki's type and experience, a vast field is opened up.

The author has collected a mass of authoritative reference from which he quotes, and amplifies or contradicts as his own experiences and observations dictate.

The book is divided into eight chapters, which deal with anatomy and physiology of the male sex organs; forms of impotence, with special divisions dealing with diagnosis, prognosis, prophylaxis and treatment.

Dr. Vecki's Introduction might cause somewhat of a mental shock to the purists and reformers, who advocate almost complete sublimation of acts or thoughts of a sexual nature. He considers man's sexual instincts one of his most important forces, and has only pity for the man who is bereft of the powers of coition.

His long years of experience has allowed him to draw distinctions between the cranky, dissatisfied, hypochondriacal impotent, and the buoyant, happy, vigorous man, who possesses his sexual faculties.

This book is well worth reading by every one of the medical profession. Much of it could be read with profit by the layman as well. L. L. S.

**General and Dental Pathology.** By Julio Endelman, M. S., D. D. S., and A. F. Wagner, A. M., M. D. 593 pp.; 440 illustrations and 4 colored plates. St. Louis: C. V. Mosby Co. 1920. Price, \$7.00.

In their preface the authors, Californians, state that it has been their "aim to treat the subject from the standpoint of gross and microscopic pathology. . . . The clinic and laboratory have been made use of extensively in the collection of data and an effort has been made to include only tangible information, excluding all statements of a more or less speculative character." They believe also that the comprehension of dental pathology rests upon a clear conception of those abnormal phenomena grouped under the heading of general pathology, a good condensed outline of which is given in the opening third of the book. The remaining 360 pages are enriched by many illustrations from original photographs and photo-micrographs, and the normal and pathological aspects of the tissues of the teeth proper and of their soft and bony investments are carefully and comprehensively considered. When dental radiograms and laboratory and clinical findings began definitely to point to pulpless and pyorrhetic teeth as agents of systemic infection, a common ground was furnished upon which physicians and dentists might meet. That a great deal of work in collaboration in this field remains to be done is evident; but it may be justly said that only those who have witnessed or performed the surgical removal of infected pulpless teeth or the laying back of gum flaps for the curetment of "pyorrhetic pockets" can have an adequate picture of dental pathological conditions with their varied implications of mental and bodily disturbances.

L. V. O.



**Surgical Shock and the Shockless Operation Through Anoci-Association.** By George W. Crile, M. D., Professor of Surgery, School of Medicine, Western Reserve University, Cleveland, and William E. Lower, M. D., Associate Professor of Genito-Urinary Surgery School of Medicine, Western Reserve University, Cleveland. Second Edition of "Anoci-Association" Thoroughly Revised and Rewritten. Octavo of 272 pages with 75 illustrations. Philadelphia and London: W. B. Saunders Company. 1920. Cloth, \$5.00 net.

Paganini, it is said, cared little for his fame as a violinist. It was as a composer that he longed to have his name handed down to posterity. Posterity, however, still knows him as the greatest fiddler who ever lived; his compositions it has buried and forgotten. It almost seems as though Crile were emulating him. The writings of this consummate virtuoso deal, as time goes on, less and less with matters of surgical technique, and wander farther and farther into fields of theory. However, we will forgive him his theoretical excursions gladly; out of them have arisen the most beneficent of the recent developments of surgical art. Nothing more productive of good has been brought into surgery since the days immediately following Pasteur and Lister—the '80s and '90s of the last century.

Despite the promise in the preface to omit "any discussion of the various theories of shock," discussions of Crile's own theory take up the first seven chapters—over half the book. This part is more interesting than convincing. The remaining chapters deal with the anociation (anoci-association) technique in abdominal operations, genito-urinary operations and goitre. They merit strictest attention.

The book is well written and illustrated.

Every surgeon will profit from studying it and being guided by it. L. E.

**Care of the Baby.** By J. P. Crozier Griffith. 6th ed. 463 pages. Illustrated. Philadelphia and London: W. B. Saunders Co. 1916.

The careful instruction in detail as to the hygiene and care of the baby in health justifies the six editions through which this work has passed.

In the meal schedule for all babies, we feel that two night feedings, 12 and 4, are a mistake; that the night bottle after 10 p. m. should be omitted after six weeks and that five feedings are enough, whether the child is on a three-hour schedule by six months—6, 9, 12, 3, 6, or a four-hour schedule—6, 10, 2, 6, 10.

We feel that the thermos bottle has no place in a baby's outfit. Its only possible use is to hold milk cold or to hold boiling water for night heating of a bottle, never to incubate bacteria by holding milk warm through the night.

Our experience in California agrees with the school of pediatricists which advocates the early addition of green vegetables puréed, hence their delegation "to 2-3 years and then cautiously" seems strange. Cream, as usually skimmed in the country and delayed in transportation, always gives trouble, and is out of place in a child's diet in any California city. Certified milk or accurately pasteurized milk should be a source of butter fat to the child. In view of the H. C. L., the ordering of two quarts of milk to secure 12% top milk in sufficient quantity seems unnecessary, 5% or 8% or 10% top milk from one quart offers variation in fats and the corresponding skimmed milk the proteids required by different demands of the baby, and the surplus of skimmed milk is a household problem in the one child and one servant or no servant household.

The book will remain, as it always has been,

the last word as a reference book for the intelligent mother and her co-workers, the doctor and the nurse. Doctor Griffith has impressed upon us all the importance of detail in keeping babies well. A. B.

**Treatment of Syphilis.** By H. Sheridan Baketel. 167 pages. Illustrated. New York: Macmillan Company. 1920. Price, \$2.50.

Even the most experienced syphilologist will read this book with some profit, and whoever treats syphilis should read it. Of course, there are a few things we must object to: Those who know will easily understand that the author means "intramuscularly" many a time when he says "hypodermically," but it might lead to misunderstandings. We cannot agree with the author when he makes the statement that the percentage of fatal cases following the use of salvarsan, and which he places at between 1/50 and 1/100 of 1 per cent. is almost negligible, and we are sure that even that small percentage can be avoided. While it may be negligible for the head of a hospital department, it is not negligible in private practice, and surely not negligible for the poor fellow who just happens to be the victim. Of course, Baketel must be of the same opinion, because he enters into a detailed and excellent discussion of animal experiments which show how fatal accidents may happen. We are very glad that he emphasizes repeatedly the care that must be taken in first examining the patient's bodily condition, then to properly prepare him, and to watch the heart's action during the injection of arsphenamin.

Amongst the mercurial remedies the author mentions, we were surprised to miss one of the best and most efficacious: the intravenous injection of cyanide of mercury. In one of the best chapters containing an almost complete review of the various methods of treatment of the central nervous system there is no mention of Barbat's *modus operadi*: to drain the spinal canal immediately after an intravenous injection of arsphenanim, and by which proceeding very good results are obtained mainly in cases of locomotor-ataxia.

The author took no notice of the fact that the blood-pressure apparatus can very advantageously replace the tourniquet of rubber tubing, and that by pumping it up to 110 the chosen vein will show at its very best, while, if there is no other assistance the patient himself can handle the inflating bulb.

We are glad, indeed, that the author lays stress upon the prophylactic value of arsphenanim, and we most heartily agree with him when he raises his voice against, what he justly calls "the lazy man's method" of administering Neosalvarsan intravenously in concentrated solutions. Knowing, however, that wool should never be worn next to the human skin, we fail to understand why Baketel orders that woolen undergarments should be worn by those undergoing the mercurial inunction treatment.

Some of the chapters of this valuable book ought to be also read by nurses and office attendants, mainly the one dealing with the care of needles. V. G. V.

**Medical Treatment of Cancer.** By L. Dincan Bulkley. 386 pages. Philadelphia: F. A. Davis Company. 1919. Price \$2.75.

This book consists of a series of lectures delivered before various societies. It contains mostly repetitions, opening and closing addresses and words of apology. Twenty-five pages would seem about sufficient to express what the author has to say. He presents nothing illuminating and leaves little inspiration behind. M. J.

## Correspondence

### WELL DESERVED TRIBUTES

June 24, 1920.

To the Secretary:

I am enclosing you my check for fifteen dollars, also one-year note for fifteen dollars, covering amount for Indemnity Fund, Medical Society, State of California.

As you of course know by this time, the case of ——— terminated favorably for us and I wish to express my thanks to the State Society Defense in this case. I wish especially to show my appreciation of the very painstaking and thorough manner in which Mr. Morrow handled this case. It surely impressed me strongly with the thought that every physician in the State should be a member of this Defense Fund.

Again expressing my appreciation in this matter, Believe me,

Fraternally yours,

July 21, 1920.

To the Secretary:

Referring to the recent case of ———, I beg to express my appreciation of your fraternal co-operation, not only in feeling but practical demonstration.

Through the valuable assistance of attorney Hartley F. Peart, whom you sent me without solicitation upon my part, I feel that the case was brought to it's effectual close without proceeding to trial; which fact alone, as you well know meant not only a great saving of energy but of working hours, a thing of far more importance.

Thanking you again for your fraternal co-operation, I am,

Very sincerely,

### THE PHYSICIAN'S RESPONSIBILITY

August 5, 1920.

To the Editor:

Dear Sir: With reference to the article appearing in the August number of the "Journal," "What Are You Doing to Defeat the Anti-Health and Anti-Medical Legislation," by Walter C. Alvarez, M. D., San Francisco, and especially concerning the four points thereof, namely: the projects to stop all animal experimentation in California, to abolish compulsory vaccination, to establish a special licensing board for chiropractors, and that which excludes osteopaths from those who are entitled to have use of hypodermic syringes, I believe it a necessity that some means of propaganda be advanced in order that the public be more generally informed as to the facts and circumstances governing these points.

As in all other affairs in which it is desired that the populace be actually informed, no hesitation is sustained in making them known. I believe that the meager efforts on the part of the physician is not sufficient in driving home such enlightenment. There is no doubt about the fact that the average practitioner will conceive of the importance of defeating these projects, but insofar as practicalities are concerned, though his conscientious efforts be extensive, it would be very improbable that sufficient time, contact, conviction, et cetera, be devoted to such efforts. It is true the physician should exert every effort in his power, but it is a decided impracticality to throw the entire responsibility on his shoulders of informing the public. It is approaching commercialism to an extent when we consider the circulation of printed matter, but no one will doubt its efficacy in delivering a forceful and righteous argument and reaching every mortal whom it concerns.

It is beyond doubt that every modern physician fully appreciates the vast importance of defending the profession as well as protecting the public and hence there would be no hesitation in contributing a small sum for such a purpose, and therefore I suggest that if on account of limited finances the State Medical Society would not consider a thorough and extensive propaganda, it would be only right to levy an assessment.

Isn't it appalling to conceive of a people who on one hand advocate the slaughtering of thousands, yea, millions of head of live-stock annually for the purpose of gratifying their palate, and on the other would for a moment contemplate preventing the use of the lowly forms of animal development in the pursuit of information and means that serve as an everlasting aid to health and maintenance of life?

Very truly yours,

R. L. STURGES.

### BEWARE THE SWINDLER

San Francisco, Calif., August 10, 1920.

To the Editor:

L. J. Goodrich, D. O., wrote us from Santa Barbara, Calif., under date of January 23, 1920, regarding a **Dr. C. Benjamin Schoenfeld**, "who recently called on Dr. Goodrich claiming that he was a registered physician and surgeon in California; represented himself to be traveling in the interest of some 52 appliance manufacturers, and on the strength of that obtaining money, claiming \$2000 as a fee for the bonding company."

In the San Francisco Chronicle under date of May 11, 1920, was a press dispatch, stating that "Dr. C. B. Schoenfeld, an osteopath, claiming to be from Reno, was held in Sacramento on a charge of attempting to pass a fictitious check for \$2000."

The Secretary of the Nevada Board wrote us under date of June 5 that he had no knowledge of Dr. C. B. Schoenfeld, stating further: "He is no doubt a fraud, if not a criminal."

Under date of June 11, 1920, the Chief of Police of Sacramento wrote us that Dr. C. B. Schoenfeld was arrested in Sacramento May 1, 1920, for passing bad checks, and was later released on May 14, 1920, his case being dismissed. "We had information that he was wanted in Berkeley for embezzlement and also in San Francisco. His whereabouts are unknown to us at the present time."

We are sending you this item of news, having in mind the possibility of said individual traveling throughout the State and imposing upon the profession.

Yours very truly,

C. B. PINKHAM, M. D.,

Secretary-Treasurer.

### Notices

The twenty-fifth annual meeting of the American Academy of Ophthalmology and Oto-Laryngology will be held in Kansas City, Mo., October 14, 15, 16, 1920, at the Hotel Muehlebach. The local members of the Academy and their friends are making arrangements to give all those who attend a pleasant time. The medical profession is cordially invited.

Doctor Warfield Longcope, of Columbia University, New York, who is coming to San Francisco as a guest of the California Academy of Medicine, is to hold two clinics, to which the medical profession at large is invited. At ten o'clock on Friday morning, September third, he will hold a clinic at the University of California Hospital on "Syphilitic Aortitis." At the same time on Saturday morning he will hold a clinic at the Stanford Medical School on "Hodgkin's Disease."



## County Societies

### LOS ANGELES COUNTY

Dr. Francis M. Pottenger has been elected Secretary-Treasurer of the new Association for the Study of Internal Secretions.

At a recent meeting there was organized in Los Angeles the **Southwestern Pediatric Society** with a membership of men who limited their work to pediatrics exclusively, and who reside either in Southern California, Arizona or New Mexico. The following officers were elected: Dr. Henry Dietrich, President; Dr. C. Edgerton Carter, Vice-President; Dr. Oscar Reiss, Secretary-Treasurer.

#### Personals

Dr. Norman Bridge was reported ill at the Blackstone Hotel in Chicago, July 20th, according to a letter received by Dr. Millbank Johnson, a close friend.

Dr. Lulu H. Peters is now in Albania. During sixteen months of hard work she did not lose a day. She is at Elbassan as a Red Cross medical officer. Besides the clinics, Dr. Peters has charge of the organization of public health work.

In Serbia, the doctor served night and day among the thousands of typhoid cases. In Roumania she did important American relief work and through her the public learned the whereabouts of Queen Marie of Roumania. Dr. Peters next went to the malaria cases in the mountains of Albania. She will remain in Europe until her services are no longer needed in the war-ridden countries of Europe.

Doctors Ellis and Kress, Eye, Ear, Nose and Throat, have formed a partnership with offices as heretofore in the Bradbury Building.

Three little girls died during the Fourth of July celebration period from chewing phosphorus, containing fireworks that looked like candy. Dr. Powers, health commissioner of Los Angeles, will recommend to the City Council an ordinance prohibiting the sale of such articles. The form of these fireworks are generally known as "sons-of-guns" and are small red square pieces of phosphorus wrapped and pressed. They explode when stepped on with the heel.

Dr. Pomeroy, county health officer, in his report to the Board of Supervisors, relates how two county nurses drove their auto more than 145 miles over rough roads so that two little sufferers might enjoy the benefits of the open-air camp at San Gabriel Canyon.

The Anti-Tuberculosis Association of Los Angeles recently gave permission to send fifty children to the camp.

A modern \$400,000 building is to be erected at the County Hospital, according to a statement of County Supervisor John H. Bean. It is intended for contagious diseases.

The City Council has authorized Health Commissioner Powers to attend a joint convention of officials of the United States Public Health Service and State and City Health Officers, to be held at Galveston, Tex., August 3rd and 4th, to become conversant with modern methods for the prevention and treatment of bubonic plague.

The L. A. County Medical Association has arranged with the Ventura Gasoline Co. that a station at 7th and Union Avenue will furnish oil to members whose numbers have been officially given. The members of the committee are: E. Avery Newton, chairman; Rea Smith, president; Harlan Shoemaker, secretary.

#### Deaths

Dr. George Edwin Townsend, of Iowa, Nevada and Utah during the last 37 years. He was born in Sheffield, Ill., graduated in 1887 from the College of Physicians and Surgeons, Keokuk, Iowa. He came to Los Angeles last October with his wife who survives him. He died July 8, 1920.

### ORANGE COUNTY CORRESPONDENCE

The August meeting of the Orange County Medical Society was held in the chapel of the County Hospital on the third inst. with a good attendance present. The society listened to a very interesting paper by Dr. C. L. Lowman of Los Angeles, entitled "Ante and Postoperative Treatment From An Orthopaedic Standpoint." The doctor's paper brought out the point that patients should be more thoroughly examined for static defects before operation and while on the operating table and during convalescence. The production of sprained and defective joints and muscles should be carefully avoided by correct postural measures. The paper was discussed and enjoyed by all.

Dr. J. A. Jackson, radiologist for the Johnston-Wickett Clinic, returned from a two-months' visit to Eastern clinics.

Dr. W. H. Wickett has left for a month's post-graduate study at Chicago.

Dr. J. L. Dryer of Santa Ana is recovering from a laparotomy. His many friends in the profession are glad to know that he is improving.

Many new physicians are arriving in Orange County and it is evident that some of the best physicians of the Middle West have been attracted to this vicinity to practice.

### SAN FRANCISCO COUNTY

The Board of Directors of the County Medical Society deplores the undesirable publicity given the autopsy on Mrs. Eisenschimmel and wishes the members to know, that the autopsy was performed in a perfectly legitimate manner to the full satisfaction of the head of the pathology department of Stanford University.

## Clinical Department

Physicians are invited to send in comment, suggestions, questions or similar experiences, in connection with any report appearing in this column. Unless advised to the contrary, the name of the writer will appear with each contribution.

### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS

#### CASE NO. 9

March 19, 1916.

Male, Italian. Age 1 year. No. 10860. J. O.

**Complaint:**—Increasing size of the head with progressive loss of intelligence.

**Family History:**—Father living and well, aged 35 years; mother living and well, aged 29 years, now pregnant. Five children, two brothers and one sister living and well, one brother living but at present has a "bad cold in the chest," and one sister living, aged 3, is being treated in the Orthopaedic Clinic for genu valgum. No dead children and no miscarriages. No history on either side of hydrocephalus, idiocy, insanity or paralysis. No history of tuberculosis or of exposure.

**Past History:**—Was full term, normal delivery, breast fed for 7 months, then placed on Eagle Brand Sweetened Condensed Milk, 4 teaspoonsful to 8 ounces of boiled water, until the onset of the present illness. Since then he has had cow's milk, cereal, mush and crackers. Sat up 6-7 months. 1st tooth 5-6 months. Has not walked or talked yet. Has had frequent "colds" before onset of the present illness, which was ushered in by "bronchitis" supposedly, aged 9 months. There has always been considerable mucus in the nose but the nasal respiration has not been interfered with especially. Was subject to occasional vomiting even while on breast milk but was free from particular digestive troubles until the age of 2 months, then with the onset of the frequent colds, diarrhea, watery, mucus and green, was also a frequent occurrence. Has had no operations and no accidents.

**Present Illness:**—As noted above, the child was apparently normal at birth, and developed normally except for the occurrence of frequent colds, until the age of 9 months, when he suffered an attack of bronchitis, supposedly without fever. Until that time nothing abnormal had been noticed in the size or shape of the child's head and his mentality was apparently normal for his age; he laughed and played as a normal child might. At the time of the bronchitis, however, the head was definitely noted as large by the family. This was coincident with the onset of almost constant spasticity. From three to four weeks later (Dec. 27, 1915) convulsions began to occur, rapidly increasing in frequency until they came every 10 to 30 minutes, accompanied by more pronounced spasticity, generalized, but with no localizing symptoms, conjugate deviation, or nystagmus or both. Strabismus is supposed not to have occurred. The child may have been unconscious during the attacks, but his entire intelligence had failed so rapidly that he seldom seemed actually conscious. Mother thinks he is both blind and deaf. Irritability with constant crying has been a feature. For the past two weeks the convulsions have diminished in frequency, occurring but several times during the 24 hours. Spasticity remains constantly present, however, with inconstant nystagmus and conjugate deviation. The child was seen by an outside physician but the case pronounced hopeless and nothing done.

**Physical Examination:**—An emaciated, extremely irritable baby of 12 months in practically constant generalized spasticity involving the neck, trunk and extremities, occasionally relaxing momentarily. Slightly cretinoid cast to the features. Head very large, flattened superiorly with marked occipital and postero-lateral bulging. Fontanelles widely open and tense as are the open sutures, especially on the left with evident trabeculation of the bones in which spaces the fluid pressure is marked.

**Head Measurements:**—O. M.—20 cm. B. T.—11 cm. O. F.—16 cm. Interauric arc—28 cm. L. O. B.—15 cm. Inter-auric Arc—36 cm. B. P.—15 cm. Circ.—50 cm.

Profuse perspiration about the head. Eyes hydrocephalic type with superior scleral margins showing. Pupils equal, circular. Eye muscles, inconstant rotatory nystagmus, strabismus (internal) and almost conjugate deviation to the left. Ears, external negative. Mouth, large. Nose depressed with muco-purulent secretion. Teeth, two upper central and upper and lower left lateral incisors. Gums slightly injected over other teeth, otherwise pale. Tongue, large, flat but not thickened, coated. Tonsils much enlarged, cryptic, reddened. Post-pharyngeal wall reddened. Cheeks pale except for a slight malar flush. Superficial cervical nodes barely palpable, small, shotty. Thyroid not palpable. Thymus not enlarged. Chest, thin, no groove. Dilated venules. Mammæ negative. Heart impulse faint in 4th space. Dulness to the left in the 4th space, 6 cm. from the M. S. L., 2.5 cm. on the right from the M. S. L., 2nd rib above. Sounds foetal, slightly roughened but still valvular in type, most marked sinus arrhythmia. No murmurs heard. Lungs—breathing diaphragmatic, spaces retract slightly, impaired resonance at the left apex with slightly diminished bronchovesicular breathing, elsewhere sounds puerile, harshened with bronchial rales over the primary bronchi and transmitted from them. Bronchial voice transmitted to lower scapula. Slight posterior apical impairment of resonance. Abdomen much distended (partly opisthotonus), symmetrical, tympanitic, superficial veins dilated. Liver dulness from the 4th rib to the costal margin. Edge palpable 1.5 cm. below the costal margin in the M. C. L., 2 cm. in the parasternal line, smooth, firm. Spleen palpable 1 cm. below the costal margin. No retroperitoneal masses determined. Ques-

tionable slight shifting dullness. Slight umbilical hernia. Both inguinal canals with bubonocoele right > left. Inguinals hard, shotty, slightly matted. Genitalia—preputial adhesions. Testes in scrotum. Back—vert. col. marked spasticity with opisthotonus which can be overcome by steady pressure. No evidence of spina bilida. Extremities—tissue turgor much reduced. Generalized spasticity, the legs in extension, the forearms in flexion and semi-pronation. Both can be overcome. Equal on the two sides. Marked enlargement of the epiphyses with bowing of the tibiae and fibulae. rachitis. Reflexes—determined with difficulty. No clonus. Infantile Babinski. No Kernig; Brudzinski and neck sign positive. No Mendel or Oppenheim. No Trousseau, Chvostek or Erb. Anus—no fissures and no excoriations.

**Laboratory Findings:**—Von Pirquet on left arm—negative.

Wassermann in blood serum—negative.

X-ray of chest—peribronchial thickening in best.

X-ray of skull—thinning of the skull.

X-ray of long bones—rickets.

Lumbar puncture—done in the 11th I. V. L. space 50 cc. clear fluid withdrawn under increased pressure. Cell count 5 per cum.

Differential—all lymphocytes. Nonne —. Noguchi ++.

Fehling's—reduced. Clot—0. Wassermann—negative.

Frazier test No. II: 1 cc. neutral phenolsulphonephthalein (phthalein) injected through the lumbar puncture needle. First noted appearance in urine—20 minutes. Excretion 1st hour—5%, 2nd hour—10%.

Luetin on right arm—negative.

Nose and throat cultures: Nose—cocci of all types. Throat—diplo and tetra cocci yeast.

Urine—negative.

Blood—Hemoglobin—60%; R. B. C.—4,960,000; W. B. C.—11,000; N.—50%; L.—42%. L. M.—1%; E.—1%.

Reinforced tuberculin reaction—negative.

Spinal fluid sent to Pathological Laboratory for guinea-pig inoculation, negative.

**Eye Examination:**—External eye normal—no divergence of optic axes, no ptosis. Eyes slightly protruded—sclera showing around circumference. Pupils dilate round, are equal. Fundus examination: Right and left eyes. Media clear—nerve head and edges not atrophic—retina very thin. Choroid showing through very plainly everywhere, but there are not present anywhere in the fundus any signs of inflammation, hemorrhage or edema. Questionable if child sees anything and visual loss apparently due to retro-ocular changes.

February 24 (4th day after entrance)—Ventricular puncture—bloody fluid.

February 25—Neurological consultation—the unilateral vaso motor signs present to-day noted, shown by sweating, slight redness of the left cheek. There is also continuous twitching of the left upper lip and conjugate deviation of the head and eyes to the left as noted before. He considers that the child has a definite disturbance of the cerebro-spinal fluid secretion but with an inflammatory basis, most probably an encephalitis. He suggests the advisability of phthalein estimation from the two lateral ventricles independently.

Lumbar puncture—3 cc blood-tinged fluid withdrawn extremely slowly.

Ventricular puncture—blood only.

February 26—Neuro-surgical consultation—finds no indication for operative interference, the process being an old inflammatory intracranial lesion or lesions, with resulting interference in cerebro-spinal fluid absorption. The majority of the signs point to the right cerebral hemisphere. There is no evidence of dilated ventricles, the brain being oedematous instead.

Blood carbonates (Van Slyke)—43.5 volume per cent.

February 27—Perspiration is most extraordinary



the forehead is constantly covered with great drops. There is no noticeable unilaterality to-day.

February 29—Lumbar puncture—done in 2nd L. V. L. spaces—20 cc. blood-tinged fluid withdrawn under no increased pressure.

Ventricular puncture—blood only.

March 6—The child looks better, has a fair color and is less restless and slightly less spastic. His appearance is more "hydrocephalic" than at any time in spite of the failure to demonstrate either internal or external hydrocephalus. The fontanelles and sutures are very tense.

March 9—Ventricular puncture—4-5 cc. blood-tinged fluid withdrawn.

Blood carbonates—47.8.

Carbonates in spinal fluid—44.

March 14—Carbonates in blood—47.

March 19—The baby died at 9:30 P. M.

**Discussion:**—As to differential diagnosis, the first question was one of hydrocephalus. From the appearance of the child, the wide open sutures, and the tenseness of them and the fontanelles, there was the suggestion of error in the family observation as to the onset of the head enlargement at the age of 9 months. The findings in the spinal fluid, however, spoke for an infectious process of some type, most probably an encephalitis occurring at that time with the development of a slowly increasing cerebral oedema and possibly gliosis. The question of tumor formation was thoroughly discussed, to be differentiated from the preceding hydrocephalus because of the well known similarity in clinical signs and the clinical progress of cases of this type, not only to cerebral oedema but to hydrocephalus interna. A solitary tubercle, abscess, or tumor may cause such symptoms and signs. Radiographs of the head, however, were essentially negative. The spinal fluid showed an old infectious process. The ventricles could not be tapped even by repeated puncture. Note was made of the sense of resistance to the needle in attempting ventricular puncture, but the true significance was not attached to it. The appearance at intervals of definitely unilateral signs, always left sided, naturally suggested either an acute process involving the right motor cortex or the irritative results of an old one. Failure to reach the ventricles, should they be displaced by a tumor would require rapid growth and immense size. Oedema and possibly gliosis of the brain would each develop more rapidly, interfere actively with absorption but also production of spinal fluid and dilated ventricles of any size need not be presupposed.

At autopsy an immense glial tumor leaving but a shell of cortex was found, mainly extending to the left, with a small implantation on the superior cerebellar peduncle, together with a granular ependymitis. The ventricles were displaced far to the sides.

**Diagnosis:**—Brain tumor, Meningo-encephalitis, Ependymitis, Cerebral oedema, Hydrocephalus interna, Rachitis, Retinitis, Broncho-pneumonia, Subacute suppurative otitis media, Spastic tetraplegia, Secondary tuberculosis of the lungs.

## State Board of Medical Examiners

### MEETING OF STATE BOARD OF MEDICAL EXAMINERS

At the regular meeting of the Board of Medical Examiners in San Francisco, June 28th to July 1st, 1920, a large amount of business was transacted. From the standpoint of number of applicants, this was one of the largest meetings the Board has held for some time. Approximately 218 reciprocity applications were considered, and approximately 145 applicants were admitted to write the examination for physician and surgeon certificate, drugless practitioner, chiropody, as well as a certificate to practice midwifery.

Nine Japanese applicants wrote the examination in their native language. After careful deliberation on the experiences of the Board in past examinations given in a foreign language, the following resolution was carried:

WHEREAS, Section 11 of the Medical Practice Act provides:

"All examinations . . . shall be conducted in the English language, and at least a portion of the examination in each of the subjects shall be in writing. The Board in its discretion upon the submission of satisfactory proof from the applicant that he is unable to meet the requirements of the examination in the English language, may allow the use of an interpreter either to be present in the examination room or to thereafter interpret and transcribe the answers of the applicant"; and

WHEREAS, The Board has heretofore exercised the

discretion granted to it by law to the end that examinations have been given in a foreign language; and

WHEREAS, The giving of examinations in foreign languages has been unsatisfactory and has resulted in attempts to impose upon the Board; and

WHEREAS, The number of applications to take the examinations of the Board in foreign languages is not sufficient to result in any appreciable benefit to the sick and afflicted in this state and is not commensurate with the labor necessary to safeguard such examinations; be it therefore

RESOLVED, That the Board of Medical Examiners of the State of California does hereby discontinue the policy heretofore adopted by it of giving examinations in foreign languages.

It was further determined that legal action be taken against those licentiates who, having failed to pay the annual tax as provided in Section 2, Chapter 81, Statutes of 1917, still continue practice.

The legal calendar was taken up on Tuesday, June 29th, and disposition made of an unusually long list of cases. It is regretted that space is too limited to publish a synopsis of this legal calendar, as it gives a remarkable insight into the ceaseless activities of the Board in enforcing the provisions of the Medical Practice Act of California.

### ILLUSTRATING THE NEED FOR A STATE BOARD OF MEDICAL EXAMINERS

July 22, 1920.

Secretary Board Medical Examiners, of State of California.

Sacramento.

Dear Sir: In looking over the questions of the requirements for application for Licenses, to practice Medicine and Surgery in California, I find one. Have you ever applied for a License in this State before? To this I answer yes.

I took the examination in Los Angeles in August 1906 and again in April 1907. In both instances was unsuccessful, as you will recall what happened to the members of that Board soon after that time. And I wanted to get my License upon merits.

Now, as my Almamater, the American Medical College of St. Louis, Mo. it has since gone out of existence, and as you already have my record on this matter, would like you to advise me, as to just what steps to take in the matter of getting my application certified to. And as I hold a License from Mo. upon examination 1900 Utah examination 1905 Nevada Reciprocity 1907 Colorado 1910. Which of these or all shall I base my claim for Reciprocity on. Also when the next meeting of the Board will be and where it will be held.

Thanking you in advance for your prompt answer to the above.

I AM Yours Truly,

T. O. D.

### A WELL-DESERVED ENCOMIUM

7/23/20.

Chas. B. Pinkham, Sec., Sacramento, Cal.

Dear Sir: I wish to congratulate you and the Board on your representative, Angel C. Favatt, who has spent the last two days here.

For quick, aggressive action, he is there with bells and shows no fear or favor. He is after the crooked "Does." like a good bird-dog after quail, and landed two here with very little difficulty. His work here before at my solicitation, with also that of Henderson, is worthy of commendation. A job of this kind is no place for a molly-coddle and this man Favatt by no stretching of the imagination can be put in the molly-coddle class. More power to him and you in your earnest efforts to clean up the undesirable and illegal "doctors."

Sincerely,

C. E. PEARSON, M. D.

City Health Officer, Turlock, California.

### The Reply

Dr. C. E. Pearson, Health Officer, Turlock, California.

San Francisco, Calif., August 2, 1920.

Dear Doctor Pearson:

Allow us to express our appreciation for your cordial letter of approval of the activities of our Special Agent Henderson, as well as Assistant Special Agent Favatt.

The prosecution of violators of the Medical Practice Act is largely a "labor of love" and when an appreciative letter, such as yours, comes to our desk, we are quite overwhelmed at such an unexpected expression of approval of our work. The correspondence criticizing us and protesting against our procedure comprises a large part of our work relative to legal enforcement.

Possibly the larger percentage of the licentiates of the State of California appreciate our efforts but manifest no material expression of such appreciation.

We have built up an investigation and prosecution department such as never before has been operative in this State. Our investigators are covering the entire State, both north and south, and our special prosecutors, who have through long experience and constant study, familiarized themselves with every phase of the Medical Practice Act, as well as every trick of the attorneys who defend violators, are constantly actively engaged, traveling from county to county in an endeavor to compel respect for the provisions of the Medical Act.

The average licentiate, once in possession of his certificate, is apathetic, and the average district attorney is not interested in prosecutions of violators of the Medical Practice Act, due to the apathy of licentiates, as compared to the active advertising and personal campaign of those who violate the Medical Act.

The ballot presented to the people at the November election will have printed thereon the Chiropractic Initiative. The Chiropractors have spent thousands of dollars throughout the State, advertising in newspapers and actively distributing propaganda to the end that they may succeed in securing a sufficient number of votes to pass their measure, which, once placed on the Statute Books by an Initiative, can never be modified by legislative action; hence it behooves the apathetic licentiate to awaken from his lethargy and actively interest himself in legislation which is of material importance to him.

Again thanking you for your cordial letter and trusting that we have not taken too much of your time by this voluminous letter, believe us,

Appreciative'y yours,

C. B. PINKHAM, M. D.,

Secretary-Treasurer.

## Medicine Before the Bench

In this column will appear with appropriate comment, from month to month, court decisions and proceedings affecting the various phases of medical practice, the conduct of hospitals and the enforcement of public health laws.

### Health Officer Upheld in Fight on Social Disease

"Vice Isolation of Women Is Given Court Set-back" announce the heavy headlines of several daily newspapers. The story beneath these misleading headlines is based upon a minority opinion rendered by Justice John T. Nourse of the Appellate Court, in which Justice Nourse expressed minor views that Section 2979a of the Political Code is unconstitutional, the section under which the health officer must proceed to make effective the program of the government in stamping out venereal diseases and thereby saving future generations from their ravages.

"The broad scope of the main opinion is atrocious in its consequences," says Justice Nourse. Now what is the broad scope of the major opinion which is so "atrocious in its consequences" and which was written by Justice Frank S. Brittain

and concurred in by Justice Langdon? The case that called forth the major opinion was brought by Mr. Raine Ewell in a lengthy application for a writ of habeas corpus directed against the Health Officer of the city and county of San Francisco to secure the release of Evelyn Travers. District Attorney Mathew Brady and Deputy District Attorney Leo R. Friedman appeared for the Health Officer. A Commissioner was appointed by the Court. A large number of witnesses testified and documentary evidence was introduced tending to prove that Evelyn Travers was infected with certain specific diseases that were a menace to the public health and that the Health Officer was therefore justified in detaining her in the City and County Hospital. The testimony of medical experts on the part of the respondent was direct and positive concerning the infection of the woman by two distinct, infectious and communicable diseases most frequently transmitted through participation in social vice. "The Court is of the opinion that the finding of the Commissioner that the two forms of disease in question were present at the time of the issuance of the writ is sustained by the evidence and is conclusive, and there is no evidence that either has been eradicated since that time."

"It is a matter of common knowledge," continues the main opinion of the Court, "that the federal government, the state government and the municipal government are engaged in an effort to prevent the spread of the two diseases in question. By section 2979 of the Political Code the state board of health is vested with general power of inspection, examination, quarantine and disinfection of persons within the state, and with power to appoint inspectors who, under the direction of the board, shall be vested with like powers. The state board of health appointed the health officer of the municipality such an inspector, and directed him, as one of its such inspectors, 'to use every available means to ascertain the existence of, and immediately to investigate, all reported or suspected cases of syphilis in the infectious stages of gonococcus infection.' Inspectors were further required to make examinations of all persons reasonably suspected of having either of the specified diseases, and 'owing to the prevalence of such diseases among prostitutes, all such persons may be considered within the above class.' The law provides for the isolation of persons suffering from infectious and contagious diseases. Such laws have been upheld in a multitude of cases, and the safety of the community depends upon the proper enforcement of health and quarantine regulations. On habeas corpus proceedings the first question and usually the only one presented is as to the existence of the power of restraint. In this case the power to isolate persons suffering from the particular diseases, or either of them, cannot be seriously questioned.

"Upon the allegations in the petition the writ was ordered issued, but in view of the record the petition was without foundation. It is considered proper in this connection to add that if a person arrested on the charge of vagrancy should appear to be suffering with another disease, smallpox, for instance, and the proceedings followed which took place in this case, the evil consequences to the community might have been frightful to contemplate. Persons petitioning for habeas corpus, particularly when such petitions are made on behalf of another, should be well assured of the facts represented to the court as true. In the present instance the petitioner no doubt erred or was misinformed, but such errors fraught with danger to the community should not be made. This statement is considered necessary to prevent anything in this opinion being considered as authority for unwarranted applications for the release of persons properly quarantined under lawful regulations of the public health department.

"The writ is discharged and Evelyn Travers is



ordered returned to the care of the respondent health officer."

If the minority opinion of Justice Nourse prevailed the big, constructive program of the federal, state, city and county boards of health against the diseases that sap our national vitality could not be effectively pursued. The California law is adequate on this subject. The health officer has the same power to deal with the victims of venereal troubles as he has to deal with smallpox, scarlet fever or diphtheria, and the people stand strongly behind the health department in the enforcement of this law. Every person known to be infected should be taken to a clinic and hospital and treated until cured.

#### Revocation of Physician's License Upheld

Superior Judge George E. Crothers refused to annul the action of the California State Board of Medical Examiners in revoking the license of Fisher R. Jordan on a charge of criminal abortion. The proceedings before the Board were taken under the provisions of the Medical Practice Act, and the record shows an abundance of proper evidence to sustain the charge, and a full compliance with all jurisdictional requirements. An appeal was taken from the decision of Judge Crothers, and the Appellate Court in a decision just handed down by Justice Koford, and concurred in by Justices Waste and Richards, affirms the judgment of the lower court.

Some seem to have the erroneous impression that the Board must conduct its hearings and reach conclusions like a criminal court. "The fact that the act complained of is called a criminal abortion," says the Court, "does not make the proceedings before the Board a criminal proceeding to the extent of making applicable to the hearing the provisions of the Penal Code with respect to evidence necessary to convict of a crime." The customary conflict in the testimony was disposed of by the oft-repeated rule that the determination of the trial court on conflicting evidence will not be interfered with by the Appellate Court.

#### Court Decision in Regard to Disclosure of Confidential Information by Physician in Order to Prevent Transmission of Communicable Disease

The case in question, as reported in the leading editorial in the New York Law Journal, for July 21, last, came before the Supreme Court of Nebraska (*Simonsen v. Swenson*, 177 N. W. Rep., 831, *Advance Sheets* of July 2, 1920), which gave a unanimous decision in favor of the physician, defendant. The opinion, which is evidently of great interest and importance to physicians generally, and all public health authorities, is reported, in part, as follows, in the *Bulletin of the N. Y. City Dept. of Health*:

"Action for damages for alleged breach of duty arising from confidential relationship between defendant, who is a physician, and plaintiff, who was his patient. At the close of the testimony the court directed a verdict in favor of the defendant and plaintiff appeals."

"Plaintiff, with other employees of a telephone company, was working at Oakland, Neb. He was a stranger at the place, and was stopping with these men at a small hotel operated by a Mrs. Bristol. He became afflicted with sores on his body, and went to the defendant, a practicing physician at that place, who took the history of plaintiff's trouble, gave him a physical examination and informed him that he believed his disease to be syphilis. He further stated, however, that it was impossible to be positive without making certain Wassermann tests, for which he had no equipment."

"Defendant was the physician of the Bristol family, and acted as their hotel doctor when one was needed. He told plaintiff that there would be much danger of his communicating the disease to others in the hotel if he remained there and requested that he leave the next day, which plaintiff promised to do."

"On the following day the defendant, while making a professional call upon Mr. Bristol, who was ill, learned that plaintiff had not moved from the hotel. He therefore warned Mrs. Bristol that he thought plaintiff was afflicted with a 'contagious disease,' and for her own comfort, to disinfect his bed clothing and to

wash her hands in alcohol afterwards. Mrs. Bristol, acting upon this warning, placed all of plaintiff's belongings in the hallway and fumigated his room. Plaintiff was forced to leave."

"The testimony of the physicians disclosed that this particular disease is very readily transmitted in its early stages, and could be carried through drinking cups, eating utensils and other articles handled or used by the diseased person."

"After leaving Oakland plaintiff consulted another physician. He gave to this physician a history, showing that he might have been exposed a few weeks before to such a disease, and was given a physical examination by this doctor. One Wassermann test was made, which proved negative. That test alone, however, this physician testified, proved nothing, since the presence or absence of such disease could not be positively known without extended tests. These had not been made, and this doctor said that it was impossible for him to say whether the plaintiff had or had not the disease when he examined him. He went on further to say that the symptoms and information upon which the defendant acted were, however, reasonably sufficient to cause the defendant to believe as he did."

"The testimony is practically without conflict, plaintiff having called the defendant to testify as his own witness."

"The plaintiff contends that, having shown the relationship of physician and patient, the law prohibits absolutely a disclosure of any confidential communication, at any time or under any circumstances, and that a breach of this duty of secrecy on the part of the physician gives rise to a cause of action in damages in favor of the patient."

"At common law there was no privilege as to communications between physician and patient, and this rule still prevails when not changed by statute (*Thrasher v. State*, 92 Neb., 110, 138 N. W., 120, Ann. Cas., 1913F, 882; 40 Cyc., 2381).

"Section 7898, Rev. St., 1913, provides that a physician shall not be allowed to disclose on the witness stand any confidential communication intrusted to him in his professional capacity. The disclosure of confidences in this case was not by the defendant as a sworn witness, and this statute, therefore, obviously does not apply and has no bearing upon this case."

"There is a further provision of our statute, however (Sec. 2721, Rev. St., 1913), providing that no physician shall practice medicine without a license from the board of health, and that such a license may be revoked when a physician is found guilty of 'unprofessional or dishonorable conduct.' Among the acts of such misconduct defined by the statute is the 'betrayal of a professional secret to the detriment of a patient.'"

"By this statute it appears to us a positive duty is imposed upon the physician, both for the benefit and advantage of the patient as well as in the interest of general public policy. The relation of physician and patient is necessarily a highly confidential one. It is often necessary for the patient to give information about himself which would be most embarrassing or harmful to him if given general circulation. This information the physician is bound not only upon his own professional honor and the ethics of his high profession to keep secret, but by reason of the affirmative mandate of the statute itself. A wrongful breach of such confidence and a betrayal of such trust would give rise to a civil action for the damages naturally flowing from such wrong. Is such a rule of secrecy, then, subject to any qualifications or exceptions? The doctor's duty does not necessarily end with the patient, for, on the other hand, the malady of his patient may be such that a duty may be owing to the public, and, in some cases, to other particular individuals. Recognition of that fact is given by the statutes in this state, which delegate power to the State Board of Health and to municipalities generally to require reports of and provide rules of quarantine for diseases which are contagious and dangerous. An ordinance in Omaha enacted under such power, providing quarantine of communicable venereal diseases, has been sustained by our court in *Brown v. Manning* (103 Neb., 549, 172 N. W., 522).

"When a physician, in response to a duty imposed by statute, makes disclosure to public authorities of private confidences of his patient to the extent only of what is necessary to a strict compliance with the statute on his part, and when his report is made in the manner prescribed by law, he of course has committed no breach of duty toward his patient, and has betrayed no confidence and no liability could result. Can the same privilege be extended to him in any instance in the absence of an express legal enactment imposing upon him a strict duty to report? The statute making the 'betrayal of a professional secret' misconduct on the part of a physician is in derogation of the common law, and should be strictly construed. We believe the word 'betrayal' is used to signify a wrongful disclosure of a professional secret in violation of the trust imposed by the patient."

"No patient can expect that if his malady is found to be of a dangerously contagious nature he can still require it to be kept secret from those to whom, if there was no disclosure, such disease would be transmitted. The information given to a physician by his patient, though confidential, must, it seems to us, be given and received subject to the qualification that if the patient's disease is found to be of a dangerous and so highly contagious or infectious a nature that it will necessarily be transmitted to others unless the

finger of contagion is disclosed to them, then the physician should, in that event, if no other means of protection is possible, be privileged to make so much of a disclosure to such persons as is necessary to prevent the spread of the disease. A disclosure in such case would, it follows, not be a betrayal of the confidence of the patient, since the patient must know when he imparts the information or subjects himself to the examination that in the exception stated his disease may be disclosed.

"In order that such a privilege of making a disclosure be available to a physician, however, he must have had ordinary skill and learning of a physician and must have exercised ordinary diligence and care in making his diagnosis; otherwise he could be subjected to an action for negligence in making a wrongful report (*Harriott v. Plimpton*, 166 Mass., 585, 14 N. E., 922).

"In making such disclosure a physician must also be governed by the rules as to qualified privileged communications in slander and libel cases. He must prove that a disclosure was necessary to prevent spread of disease; that the communication was to one who, it was reasonable to suppose, might otherwise be exposed, and that he himself acted in entire good faith, with reasonable grounds for his diagnosis and without malice.

"It appears to us that the facts disclosed by the record in this case show that the occasion was privileged; that the defendant had reasonable grounds for his belief; that he made no further disclosure than was reasonably necessary under the circumstances, and that he acted in good faith and without malice.

"Had the plaintiff put in issue any of these facts the case should have gone to the jury, but, as we take it, the testimony introduced raises no issues upon those questions.

"For the reasons given we recommend the case be affirmed."

## Collected Clippings in Press

### "Diet" Specialist Fined \$500.00

A. Levenzin, who claimed to be a diet specialist, was arrested for dispensing so much food knowledge without a license. He pleaded guilty, was fined \$500.00 and given 180 days in jail to contemplate the palatability and utilizable energy value of prison food. This will enable him to understand the metabolic products of protein, the absorption of carbohydrates and to learn from experience that there is no antiscorbutic vitamine in pickled cabbage.

### Japanese Must Speak English

The examination of Japanese in their own language has been discontinued by the State Board of Medical Examiners. This should prevent some of the irregular and unreliable interpretations of the past.

### Jame Jear Suspended

For the next six months those patients of Bakersfield who rely upon Jame Jear herbs to invigorate them will have to possess their souls in patience. Jame Jear was convicted for violating the Medical Practice Act and suspended for six months.

### Liquor Permit Cancelled for Over-Issue

The liquor permit of the proprietor of the Regal Drug Store, San Francisco, was cancelled for over-issue of liquor prescriptions. The store was seized to pay liquor tax and penalties of \$7,500.

### A Fine Name Fined

Wah Quack, a most appropriate and descriptive name for its owner, pleaded guilty in Los Angeles on June 15th for violating the Medical Practice Act and was fined \$100. Wah will only have to quack a few times to pay that.

### James E. Thompson's License Revoked

The Board of Medical Examiners revoked the license of James E. Thompson at its February meeting. In the issue of June 8th of the San Francisco Examiner the following appears: "James E. Thompson of Oakland is charged with performing a criminal abortion on Mrs. Beatrice Snyder. He has been the defendant in four prior similar trials."

### Wong Ting, Hong Wong and P. S. Hsu

A Chinese triumvirate that specializes in breaking the Medical Practice Act, Wong Ting and postscript Hsu, the postscript being \$100 fine, herbalize in San Jose and Hong Wong in Santa Cruz. They mostly plead guilty, pay the fine and hasten back to distribute the short dried herbs and gather in the long green.

### Chiropractor Agrees to Cease Practice

O. R. Bye of Turlock was engaged in chiropracting in Stanislaus County without taking any examination or getting a license from the state. He was arrested, released on bail, and has his case dismissed on the promise that he would cease to practice.

### Surrendered by Bondsmen

Dr. M. A. S. Frank, of Los Angeles, indicted some time ago with Doctors D. A. Purcell and Augusta Stone, charged with using the mails to advertise illegal surgery, was surrendered by his bondsmen.

### Linden C. McCash Paroled

After serving only half of a hundred day sentence at the Alameda County jail for violation of the Medical Practice Act, Linden C. McCash was paroled on June 12th. You may remember McCash, the chiropractor, who had his picture taken looking through the bars. This is a familiar method of chiropractic propaganda. Break the law, defy the law, denounce the State Board, appeal to prejudice, get a parole and get the money. It's a winning game if there are any weak links in the law-enforcing chain.

### COLLECTED CLIPPINGS

The Fresno Republican under date of March 15, 1920, published an editorial in masterful, characteristic, succinct verbiage, disclosing the fallacious arguments advanced by the chiropractors in their recent letter to Governor Stephens insisting that he appoint a chiropractic board, by stating the law requires the applicant for a drugless certificate to have half the education required of the applicant for a medical license. "Any chiropractor who is half educated can get a license . . . the rest preferring the pretense of law defiance to the confession of ignorance, put up the plea that the Examining Board being composed of physicians, is their competitor and that its members could not examine a chiropractor, because chiropractic is not taught in medical colleges."

Governor Stephens has been importuned by several hundred chiropractors from all parts of the state to suggest that persecution of chiropractors should be stopped and the letter insists that the Governor appoint a chiropractic board for chiropractors.—Corona (Cal.) Independent, 3/12/20.

## Jewish Medical Association of Palestine

Palestine's first medical journal, "Harefoah" (Medicine), has just made its appearance, published by the Jewish Medical Association of Palestine. The journal is a quarterly and its first issue is dedicated to the memory of the Jewish physicians and nurses, who "laid down their lives in the years of upheaval in the Holy Land."

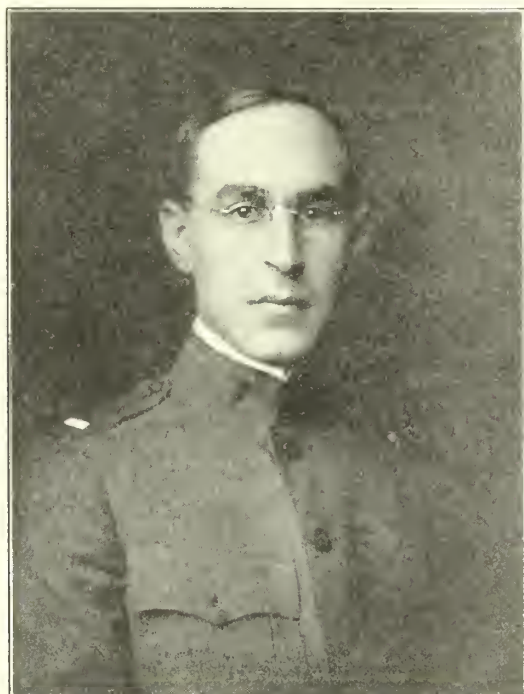
The objects of the medical association, as outlined in the quarterly, are to strengthen and coordinate the medical forces of the country and to collaborate with doctors outside Palestine; to give the medical work a national as well as a humane value; to prepare a native soil for Jewish scientists; and to help in the creation of the Hebrew University.

Medical work in Palestine has advanced rapidly during the past two years, stimulated by the



American physicians and nurses with the American Zionist Medical Unit, who have taught the native members of the profession, all the latest ideas in medical work and sanitation. Clinics are held by the American doctors, to demonstrate to the Palestinian doctors, the most modern methods, and lectures are given at regular intervals.

The hospitals and clinics established by the American Zionist Medical Unit in Palestine, are planned as the beginnings of the Medical College of the Hebrew University at Jerusalem, which Prof. Patrick Geddes, noted town planner of the University of Edinburgh, is designing.



## Obituary

**CHARLES ARTHUR PAUSON—1883-1920**  
San Francisco

Born in San Francisco, a boy in her public schools, alumnus of California's university, a doctor from her medical department, interne, quiet practitioner in the profession of his choice, lieutenant, captain, and major in France in the medical corps of America's army, citizen, and civil surgeon once more—such was the chronicle of Charles Arthur Pauson's life when at thirty-seven and on June twenty-ninth he stepped suddenly from the working world into the shadow. Scarce half the time allotted men for the completion of their life's task and yet that work well done. At twenty he had renounced a competency to accept the asceticism of his profession; at twenty-five, choice, voice and energy ranked him with the eternal minority in medicine; at thirty he led it by sheer force of rightness and ability; when not yet forty he died, beloved as colleague, friend and fellowman.

The record of Charles A. Pauson's life is the record of an individual in medicine. In a day when state medicine is in the air, group medicine an accomplished thing and medical practice seems sick at heart, it is well to ponder this fact. When mere words, like efficiency and organization, when paper groups and mere appellations in specialisms are accepted as cure-alls, it should be remembered that shadows lack substance and that our profession stands and falls only as the individual doctor heals or fails with his individual patient. Pauson

brought public esteem to his calling because the world that touched him found him more than expert surgeon—a doctor with human vision, individually responsible to and for the whole of a patient's interests.

In spite of his gentleness of soul, he compromised nowhere on principle. Enemies he never had, and his adversaries became his supporters through argument. He made converts to his ideals in medicine by example. Never coercive, never a propagandist, he bade those interested to come and see with him what he saw.

I have it from his companions in arms that even in the stress of campaign something larger than the maintenance of effectives at the front moved him. Officers were his associates and friends; privates went to him not only on command but sought him through desire. Their affection for the regimental surgeon and his for them tore constantly across the strands of official red tape.

Death found him carrying with his constant smile the burdens of his private and public charges. As staff surgeon in Mount Zion Hospital he stood between a past and a future, anxious to interpret to his own generation the memories and traditions of older men while insistent that impetuous youth have its opportunity.

His friends may insist for him that life is played in three acts and that he had one more to go. He would himself have joined Aurelius: "Very well then! Life is complete in two." M. H. F.

## New Members

N. N. Ashley, Benicia; Vischi, G. J., Stockton; Brothers, H. N., Santa Ana; Osburn, P. Priestley, Anaheim; Heuler, L., Fellows; Brigham, Edgar, Dinuba; Baer, Herman, Elsinore; Gregory, Verdo B., Hemet; Thuresson, Paul F., Riverside; Walker, Harold W., Riverside; Barnes, Wallace H., San Francisco; Sappington, S. O., San Francisco; Smith, R. Nichol, Los Angeles; Huckins, H. S., Pasadena; Finch, Wm. C., Los Angeles; Schulz, R. L., Los Angeles; Bagg, Chas. P., Los Angeles; Magee, Chester L., Los Angeles; Horgan, E. J., San Francisco; Washburn, W. W., San Francisco; Irvine, Robert S., South San Francisco; Drake, D. D., San Francisco; Lorentz, Jr., Robert, San Francisco; Ware, John G., Santa Barbara; Mapes, R. J., Oakland; Moffett, Edw. D., Berkeley; Barber, E. H., Oakland.

## Transferred

Rooney, H. T., from Placer Co. to San Francisco Co.; Muller, A. C., from Sonoma Co. to Tulare Co.

## Deaths

Beukers, J. M., Berkeley, Calif. A graduate of University of Leyden, Holland, 1890. Licensed in California, 1890. Died August 15, 1920.

Furtney, Henry, Orosi, Cal. A graduate of College of Physicians and Surgeons, Keokuk, Iowa, 1888. Licensed in California, 1888. Died July 19, 1920. Age 63.

Hoey, Matthew J. A graduate of College of Physicians and Surgeons, San Francisco, Calif., 1905. Licensed in California, 1916. Died at the Marine Hospital, San Francisco, August 2, 1920.

Russell, Edwin Herbert. A graduate of Boston University Medical School, Mass., 1880. Licensed in California, 1883. Died in Los Angeles, July 16, 1920.

Schumann, Hugo. A graduate of American Medical College, Mo., 1876. Licensed in California, 1889. Died in Oakland, Cal., June 30, 1920.

Eidenmuller, Wm. C. A graduate of University City of New York Medical Department, 1884. Licensed in California 1884.

# California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA  
BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

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Tuolumne.....  
Ventura.....Dr. C. A. Jenson, Ventura  
Yolo.....Dr. Frances L. Newton, Woodland  
Yuba-Sutter.....

Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVIII

OCTOBER, 1920

No. 10

## ATTENTION, PHYSICIANS, VOTERS!

Are you interested in continuing the practice of scientific medicine in California? Do you believe scientific medicine has any contribution to make to California in her social, economic and health development? Do you recognize that being a physician ought to make you a better citizen? Do you know that the election on November 2, so far as it affects these points, will be determined by what YOU do? If the QUACK QUARTET passes, it will be YOUR FAULT. Will you make every activity of your personal and professional life between now and November 2, tributary to the defeat of the QUACK QUARTET? Nothing else will kill these iniquitous measures. You have no time to lose. See that you, your voting family, and every one of your patients, friends and acquaintances votes

NO on NUMBERS 5, 6, 7, and  
YES on NUMBER 8.

Vote NO on Number 5, because it is the specious wail of certain chiropractors for a special board of examiners which will allow them the license to practice on the people and to permit "those who have failed in other lines" to commercialize a noble profession. Such a board is not needed because any "chiropractor" who is sufficiently educated can pass the present board (drugless practice license which entitles him to do all that he asks).

Vote NO on Number 6, because it is the Anti-Vaccination, Anti-Inoculation, Anti-Medication Amendment, and is dangerous to us, to our children and to the entire people.

Vote NO on Number 7, because it is the Anti-Vivisection Initiative and would destroy every use of animals in diagnostic and experimental work in medicine, veterinary medicine, biology, horticulture, agriculture, and many other branches of science. It would cripple the canning industry of the state. It would destroy medical schools and hospitals and diagnostic laboratories. It would prevent diag-

nosis of plague, tuberculosis and syphilis. It would prevent treatment of diphtheria, meningitis and hydrophobia. It would make mines unsafe and cities pestilent. It would forbid the destruction of malarial mosquitoes.

Vote YES on Number 8, because it is a referendum upholding the safe and sane Sale of Poison Law. Certain drugless cults wish the privilege, of course, strictly the drugless privilege, of using hypodermic poisons on a par with physicians educated to do so. If they are educationally qualified to administer these drugs hypodermically, they can qualify now to do so. The use of drugs does not pertain to drugless practice and drugless practitioners are incompetent to administer them. Vote Yes on Number 8.

Do not imagine that the evident and rank absurdity of these four measures will insure their defeat. IT WILL NOT. Nothing will insure their defeat but YOUR ACTIVE AND AGGRESSIVE OPPOSITION TO THEM, and your opposition will be measured in just one measure, VOTES. Nothing else will count. Talk will not do it. Nothing but votes will do it. If the people understand, the QUACK QUARTET WILL DIE, and stay dead. If the people do not understand it will be the fault of the physicians, of whom YOU, DEAR READER, are one. Get votes. Count them, each one of you, and do not leave a single vote in doubt. Be sure. For this month you have no more pressing business, no more timely civic duty, than to defeat the QUACK QUARTET. California, the sane, wholesome, healthful, law-abiding majority of our people, believes in scientific medicine, believes in disease prevention, believes in social and economic progress, believes in better conditions for the working man. This majority is the real California. California expects the medical profession to do its duty. It has not failed in the past. It will not fail now. Get busy. Get votes. KILL THE QUACK QUARTET.

VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8

VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8



### SERVICE.

We believe that it is incontestible that the primary measure by which the medical profession shall be measured is the measure of what service it can render to mankind. The hospital, the clinic, the group or the association is justly measured by this same standard. Hospital associations almost without exception are to be emphatically condemned on this ground first, and therefore do not deserve serious consideration on any other ground. Any clinic, any hospital or any medical institution which puts any object ahead of service to mankind, and particular service to its own patients or clients, is to be condemned without reserve. We condemn the self-styled chiropractors, first and foremost on this same ground, that they make their appeal and their chief claim on the ground of money returns to the practitioner. With equal condemnation do we decry those physicians who split fees, who receive rebates from their druggists, or from supply houses, or from optical goods, and these rebates do not have to be accepted in cash. We unreservedly condemn the doctor who accepts rebates in principle from an insurance carrier. We are convinced that the rising generation of medical practitioners are not sufficiently or properly instructed in these matters, and we believe that many of the older members of the profession could set a far more punctilious example in these matters than they do at present. And the real reason we condemn rebating, and fee splitting, and all the other insidious intrigues of commercialism in medicine, is because this Pandora's box of plagues is the first enemy of proper and decent medical service to the patient and to the public.

We believe it to be self-evident that a doctor cannot own part or all of a drug store and keep that fact at all times from influencing his treatment of his patients. The same argument applies to hospitals run for profit in which physicians hold stock. A proper and legitimate income is the social requirement of the physician if he is to deliver proper medical service. That income must never have the slightest aspersion of being procured at the price of anything short of the best medical service. Commercialism in medicine must be weeded out or medicine will cease to be a profession, and its warm human service will be vastly impaired. On the other hand the doctor must not forget his obligations to himself, to his family, to his fellows and to his God. These obligations comprehend attention to his own physical and mental health, attention to proper business methods in safeguarding and increasing his income, to provision of a reasonable amount of insurance protection for the benefit of his dependents, attention and active interest for the current social problems of the day, and personal and monetary support of the forces of religion which in an allied way are seeking the same ends sought by the medical profession.

The doctor's life may be divided into the preparatory period, in which he makes a heavy investment of time, money, energy, and personality, then the productive period, during which he attains his maximum professional, financial and social development, and finally the mature period of reflective contribution to social and professional advance. Edward Bok phrased a great truth when he said, "No man has a right to leave the world as he found it. He must add something to it; either he must make its people better or happier, or he must make the face of the world more beautiful or fairer to look at. And the one really means the other."

Service means giving, not receiving. Its action, however, is strangely enough, invariably reciprocal, and he best gets, who gives most. This is true, whether it be for student, for active practitioner, or for matured consultant. We need once more to remind ourselves that "man shall not live by bread alone." The doctor is entitled to a fair income and to a large income, if his work is worth it. The larger his income, however, whether that income be in money, in pleasure, in personality, or by whatever gage we grade it, the larger must be his contribution in kind to the cause of his patient and the greater cause of social progress.

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### VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8

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#### THE HEALTH CONVENTION

The 49th annual convention of the American Public Health Association was held in San Francisco from September 13 to 16. It was notable in many respects and a full report of its activities, discussions and personalities would require a volume of interesting reading. It is to be regretted that every physician in California could not profit by the feast of good things brought to our door.

Among the outstanding values which cannot be passed without at least mention, should be noted the vigorous condemnation by the association of the anti-health measures appearing on the California ballot in November. As Chester Rowell tersely stated, these measures are inimicable to public health, safety and economic progress. Mr. Rowell stated that in the last three years he had been saved from death three times by the death of a few guinea pigs, and that he was egotistical enough to believe that his life was worth more than a pig's!

Among the other great principles enunciated by the convention which will leave a lasting impression on the people of the entire country was the conviction that public health means public education; that health administration must be conducted primarily upon educative lines, and police powers invoked only as a last resort, that the high cost of living is a public health problem because it interferes with public nutrition and healthful living. The great value of health publicity as it ought to be organized under all health boards was strongly defended. The results of public health work along all lines was stated to appear in two major direc-

tions. The first of these as expressed by President Wilbur was the immeasurable value to humanity of the additional service by educated men and women made possible through the prolongation of human life. The second of these was stated to be the increased safety, happiness and usefulness of human life made possible not by a mere reduction of death rate, but by a reduction in conditions and diseases, which sap the vitality of man and decrease his efficiency.

### VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8

#### ANOTHER ROYAL ROAD TO LEARNING

The so-called "Western College of Chiropractic" has sent recently to real physicians a folder outlining its pretensions, etc., and among the noble list of trustees we were surprised to see the name of Thomas F. Boyle, auditor of the city and county of San Francisco. This surprise was occasioned by seeing Mr. Boyle's name appearing in such company and under such auspices. It is a pleasure, however, to be able to reproduce a letter which at once clears a good man of this connection. It would be an excellent thing if the Methodist Book Concern, in whose building this institution is sheltered, could clear itself equally well.

City and County of San Francisco.  
Office of the Auditor.

September 10, 1920.

Mr. Joseph A. Sanford, Secretary,  
Western College of Chiropractic,  
309 Book Concern Building,  
San Francisco, Cal.

Dear Sir: I am greatly surprised and annoyed to find that you have, without authority from me, published my name as one of the trustees of your college. At the time you called upon me to discuss this matter I did not consent to act in such a capacity or give you permission to have my name connected therewith. I am therefore writing at this time to instruct you not to make use of my name in any future printed or written matter relating to the college, and also to make clear that the use of my name in the preliminary announcement was entirely without authorization from me.

Kindly acknowledge the receipt of this letter and oblige.

Yours truly,  
(Signed) THOMAS F. BOYLE,  
City and County Auditor.

A certain policeman of San Francisco asked the advice of a certain physician as to whether he, the policeman, would not do well to spend a few weeks in this "college" so that he would be able to make "six hundred a month instead of one forty." The same old motive, the royal road to learning, getting the emoluments without the work. "Those who have failed in other lines make a success here."

### VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8

#### RURAL HEALTH AND RECREATION.

The intimate relationship between healthy school-life and proper recreation has become a truism. We have heard, some of us with surprise, also, that rural children are less healthy and are subject to a higher percentage of physical and mental defects than are city children.

It will therefore, be of special interest to find that country people, adults and children alike, require more play and selected recreation than they usually secure, as a matter of health betterment and physical development. This need centers in rural schools. Also, if the children are taught healthful games and all-around development through the medium of recreation, on arriving at adult life, these healthful play habits will persist.

E. C. Lindeman has recently made a unique contribution to this subject in his report on "Recreation and Rural Health," rendered to the Second National Country Life Conference. He concludes that while farm work provides abundant physical exercise out-of-doors, it does not lead to symmetrical development. It results in massive coarse muscular development at the expense of the finer and accessory muscular systems. Mental alertness and neuro-muscular co-ordination are not fostered by farm work, and on these depends an important degree of the individual's outlook on life.

Lindeman, as a result of these investigations, recommends for farm workers and rural children, games which involve the free use of the entire body, which require precision of action, develop the rhythmic instinct, inculcate the principles of co-operation, and which are mentally exhilarating.

Rural health is receiving more and more attention, and here is a field easy of development and evidently of first importance.

### VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8

#### Editorial Comment

In one of his letters, William James said, "It is customary for gentlemen to pretend to believe one another." One might add that it is also customary for gentlemen to justify the belief of their fellows.

Vaccination against smallpox should be performed once in five years. An unvaccinated generation spells disaster. Why not call the attention of your patients for the next few weeks to the increase of smallpox in California and the certain protection of vaccination?

All who treat the sick in any state of the Union should be required to pass the same educational requirements before one single Board of Examiners. They should be required, all of them, to have a minimum of two years' work in an approved academic college, followed by a minimal four-year medical course in an approved medical college, at least one year's internship in an approved hospital, and then should pass a written and practical examination. The public health is too important for fools to be allowed to meddle with it.

### VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8

### VOTE "NO" ON 5, 6, 7—VOTE "YES" ON 8



The present status of medical newspaper advertisement has never been better expressed than by Lieut. Col. W. D. Sutherland (Indian Medical Service) who says in the "Indian Medical Gazette" for July, 1920: "In Europe and America the advertisement that appears in the various newspapers may be taken to be indications of the mentality of those who make print and read them. The medical advertisement gives us information as to the astuteness of the business managers of the print in which they appear, the rapidity and disregard of truth of those who advertise, and the chief ailments from which their readers suffer, or think they suffer, as well as the extent of their ignorant credulity, without which the breed of vendors of nostrums would soon disappear from the earth, to the lasting benefit to the human race and incidentally—the financial ruin of many an undesirable news-rag."

The Monthly Bulletin of the Federation of State Medical Boards of the United States, says with pertinent emphasis as follows: "For the graduate of a Class A medical school who has also taken an additional year of hospital interne service, it seems hardly fair to require the spending of three days in answering questions prepared by a physician who graduated twenty or thirty years previously, and who, since that time, has not had the advantages of a modern hospital or lived in a large medical center. It is still more unfair when the same examination can be passed readily by the graduate of a low-grade medical, or even of an osteopathic college, who may have spent a few weeks in the study of quiz compends." Among improvements has been suggested a joint examination by the State Board with the Class A medical schools in that state. The old-style many-questioned written examination has had its day, served its generation (we hope), and should now be consigned to oblivion.

California is now distinguished, if not honored, by having become one of the great plague foci of the world. Destruction of rats and other rodents in the endemic area is absolutely essential for the safety of the public health of the United States. Plague is a disease of rats and rodents, such as ground squirrels, and only secondarily does it attack man. The outbreak last year of human pneumonic plague shows that we are living in a fool's paradise on the edge of a volcano, so long as we tolerate the existence of rodents in an endemic area. Those misguided devotees of ignorance who are favoring the anti-vivisection measure at the forthcoming election, are among the bitterest enemies of California. They would protect the rat and the ground squirrel, and presumably the flea and the tick, and any other human foe of an animal nature, regardless of its danger to humanity. Presumably their measure, if it became law, would make it a misdemeanor to swat the fly or slay the offending mosquito. Both of these are animals and therefore, forsooth, of more regard than humankind, babies, women, and men. What a reflection on the intelligence of our boasted civilization, and what a

blot on the fair name of this state, that such ideas and political measures so subversive of the public health and the common good should receive credence at all by any of the population.

## Special Articles

### SMALLPOX—A PLEA FOR VACCINATION.

By A. A. O'NEILL, M. D., San Francisco.

I think it is rather a reflection upon the intelligence of the commonwealth that in this year of grace there can be found in the community one who can be called upon to give his personal experiences with such a preventable disease as the one under consideration. If there is one fact that is absolutely demonstrated beyond all peradventure of doubt, it is that we have in vaccination an absolute preventive of smallpox.

It would please the speaker's sense of civic pride if he could but re-echo the statement of Baumler of Freiburg, who writes: "As a result of strict vaccination and re-vaccination in Germany, the disease has been prevented from appearing, so that many physicians have never had an opportunity of seeing smallpox. There has not been a case of smallpox in any form in this clinic for nine years, but in these days of rapid transit and great intercommunication with other countries, we may at any moment be required to treat the disease. . . ."

I wish to emphasize the fact that these words apply with more force to-day than ever, and a paper which would call to your attention the necessity of vaccination is not untimely.

San Francisco, like all other large communities, is subject every third or fourth year to a visitation from smallpox. These prosodemics usually begin in October and end in May. It is at this period of the year (winter) that the disease prevails and the three factors that seem essential to its propagation are absence of sun, a temperature below fifty degrees, and excessive humidity.

To what circumstances may be attributed the presence in a community like this of a large number of unprotected people? They are as follows:

1. The negligence of parents in not seeing to it that their children are properly vaccinated. Dr. John N. Force of Berkeley puts it very tersely and succinctly when he states "that unvaccinated children are unfortunate in their choice of parents."

2. The apathy of the medical profession toward vaccination and their neglect of it during quiescent periods. Another charge that might be made against them is their failure to see that the vaccination is a successful take. Of the ninety-four cases treated during the past five months, forty-two had been vaccinated but no evidence of a scar was present. The charge, too, can be justly made against physicians of informing their patients that because the vaccination was not successful they are immune from smallpox. This erroneous statement has been responsible for one death and several severe cases. Physicians occupying official positions are not altogether free of this charge when one reads that in

1914 there appeared on a U. S. naval vessel thirty-four cases of smallpox, seven of which were severe, and two were fatal. In the early part of this year the speaker was requested to see a nurse who had graduated from a hospital in this city and had passed through her training school without ever having the subject of vaccination broached to her, though on the application blank it states that a successful vaccination is essential. This young woman accepted a position in a hospital outside the city and in the course of her duty was detailed to attend a case that was diagnosed typhoid fever and from which a positive Widal was obtained, the patient dying on the third day with the appearance of what was considered to be the rose spots of the disease. Twelve days following the death of this individual she came down with very severe prodromal symptoms to be followed by a confluent eruption, which was proved to be smallpox and which resulted in her death.

The appearance of smallpox among unvaccinated nurses has been so frequent in the speaker's experience that he takes this opportunity of quoting from the Bulletin of the Chicago School of Sanitary Instruction which caustically comments on the failure of a Chicago hospital to have all the nurses vaccinated, and asks when everybody will become wise and careful enough to adopt this simple preventive measure. It says: "This week for the thousandth time or more, a reason was presented for the consideration of those who desire to escape a disease which is easily preventable. A Chicago hospital with a training school for nurses neglected the formality of having all the nurses vaccinated. An unrecognized case of smallpox came in contact with these nurses, and three were taken to the isolation hospital suffering with smallpox. All the nurses in the hospital had been vaccinated except the three who contracted the disease. These never were vaccinated and were not required to be vaccinated when they entered the nurses' training school."

3. The third factor is the anti-vaccination propaganda. Their power was shown when they had the law for compulsory vaccination repealed, and now one can urge conscientious scruples as an insurmountable objection which health officers cannot overcome. It is a matter of record that a woman resident of the Mission sent word that under no circumstances were her children to be vaccinated. Some six weeks after she announced this determination she herself was admitted to the hospital to be followed therein by her three children, all sufferers from smallpox, one of whom will carry the evidence of the attack to her grave. Today she is an ardent vaccinationist. While we must admit that statistics show that smallpox since vaccination, both in morbidity and mortality, is a very negligible factor in the health of the community, nevertheless we must bear in mind that having a large unvaccinated population about us is a menace to the community. That this is the case is shown by the figures quoted by Welch and Schamberg that 10,000 persons successfully vaccinated will yield twenty-seven cases and 1.4 deaths. Ten thousand unvaccinated persons will yield 830 cases and 247

deaths. Germany in 1913, with a population of 65,000,000 had seven cases, all of which were imported, and no deaths. Prior to the occupation of the Philippines by the United States the annual mortality from smallpox was five thousand. The military authorities instituted a very vigorous vaccination campaign and the result is that smallpox is practically stamped out of the Islands. It is therefore essential that we bear these concrete facts in mind and urge vaccination from an economic standpoint, if from none other.

In the prosodemic of variola that has just passed there were 94 cases. The initial case was admitted to the Isolation Hospital from the Emergency Hospital with a diagnosis of facial erysipelas. It was in the person of an old, decrepit, demented individual who came direct to us from Contra Costa county. On examination at the Isolation Hospital it was found that he was suffering from an iritis, and the erythema about the nose and malar eminence was due to the application of some counterirritant. The man was returned to the Emergency service with the diagnosis of erysipelas unconfirmed. He was admitted to the San Francisco Hospital, and some days later it was noticed that the patient had an eruption which was diagnosed as varicella. This diagnosis was premised on the almost entire absence of prodromal symptoms and the scantiness of the eruption. He was re-admitted to the Isolation Hospital and from this case there were some four house infections. The second case was a resident of San Francisco who spent the day in Contra Costa county and returned, and some twelve days later came down with a disease which was thought by his attendant to be measles, with the proviso "probable smallpox." This proved to be hemorrhagic smallpox, and the individual died the third day after his admission. He had been vaccinated, but no scar was evident. His occupation, that of a driver of a brewery wagon, brought him in close contact with a great many people. The result was that in the neighborhood where he had his route, the North Beach district, appeared the majority of cases. It was possible to trace all cases in that region to this individual. From that time on cases cropped up in most unexpected places. That such is possible is not to be wondered at when we consider the fact that we can have smallpox with slight prodromal symptoms and an eruption which escapes observation. This is shown in the case of a man who had what his physician called varicella and who remained at work in an establishment where there are hundreds of men employed. The way in which the Department became cognizant of his case was when we were called upon to care for his wife who had the disease in semi-confluent form and will always have the marks of it with her. The second case of like character was in a woman who had been a contact and who was carefully watched. She had the prodromal symptoms in a mild form and one lesion on the thenar eminence of her left hand was the solitary evidence of her infection. The cases of this group appeared in the hemorrhagic, confluent, semi-confluent, and discrete forms.



Of these cases one had a previous attack of smallpox; 62 had never been vaccinated.

Seventeen claimed to have been vaccinated, but showed no scar.

One had been vaccinated and had two good scars.

Seven showed good scars, none of which was less than 20 years old.

Five were vaccinated after exposure, and the vaccinia and variola ran concurrently.

To me the most striking evidence of the protective power of vaccination was seen in the foreign-born population. The parents invariably, through the fact that they had been vaccinated in the old countries or on their arrival in this country, escaped the disease or got it in a very mild form, while their children born here and who were not vaccinated, had the disease in a most virulent type.

There were seven deaths, 28 had secondary fever. It would be well to bear in mind that secondary fever appears only in the severer types of the disease, and it is not to be wondered at that there is a toxemia, when one recalls the work of Schamberg, who found that the lesions on a semi-confluent case of the disease in an adult numbered more than 29,000. Some of these lesions were emptied by means of a pipette and found to contain on an average three drops of pus, and it was estimated that there were five quarts of pus in this individual's body. It is to be remembered that the pustulation of smallpox is due to the causative agent and not to the ordinary pus producing organisms, though streptococci are to be found in the lesions after the eighth day. It is the absence of this secondary fever in the mild cases that leads to the greatest number of errors in diagnosis. Eight of the patients developed violent delirium which required restraint, but as these individuals were all of the male persuasion, I am inclined to believe that this may, in a great part, be due to their bibulous propensities. Three of the cases occurred in pregnant women in third, fifth and sixth months. They passed through the course of the disease without interruption. One woman had had criminal abortion, and the high fever at the prodromal period was attributed to an infection for which she was vigorously treated by curettage, etc. The appearance of the rash startled the attendant and indicated the true causative factor of the intense symptoms. It is not to be wondered at that the vulva was distended to a point where it appeared that it would become gangrenous. The patient left the institution without any great deformity.

As to diagnosis, the laboratory has been working vigorously to aid us in this respect (for it is a truism that all patients admitted to a smallpox hospital are not suffering from smallpox), and the best work that I know of to put diagnosis of this

disease on a scientific basis is that of Dr. John N. Force of Berkeley. By the use of sensitized rabbits, from material sent in he is enabled to clear up the diagnosis in 24 hours. The complement fixation test with vaccine virus used as an antigen, was tried, but not sufficient experience was had with it to determine its true value. The blood shows no picture which would help. There is a leucocytosis characterized by a notable increase in the mononuclears of small and medium size. In the severer types of the disease there is a marked destruction of the red blood cells.

Of course, the greatest confusion results from calling variola, varicella. Then again syphilis, that arch-imitator of skin troubles, oftentimes paints a perfect picture which leads into many a diagnostic pitfall. During the prodromal period four of the present series had been treated for pneumonia, two for typhoid, and over a dozen for la grippe. Leaning too strongly to the idea that pain in the back is pathognomic, especially when associated with fever, has caused not a few to go astray. This symptom is absent in over 50 per cent. of the cases. Schamberg called attention to the fact that the prodromal fever may last as long as the fourth day. Such I found to be the case. The usual three-day period followed by a crisis applies unerringly to the milder types of the disease. In the more severe types the marked defervescence does not occur and the feeling of well-being does not ensue. The period of incubation was much shorter in the severe cases than in the mild ones, the average being 12 days.

In reference to the eruption the admirable observation of Ricketts that "the distribution of the lesions is of more diagnostic value than their character, as also it is more easily observed," has been an invaluable aid in enabling me to arrive at a correct conclusion. It is well to bear in mind that the portions of the body that are exposed to irritation of any nature whatsoever, whether it be atmospheric, chemical, or mechanical, usually present the greater number of lesions. Hence we see it on the face, along the hair lines, and wherever there is friction from clothing. It has been the speaker's experience, and it is in line with that of others, that where a counter irritant, such as mustard, is used to relieve pain, as for example that in the back, to have at the site of the plaster an unusually heavy crop of pustles.

*Treatment.* During the prodromal stage the entire treatment is absolutely symptomatic.

Every antiseptic known to medicine has been given a trial in this disease with the hope that by its use pitting and scarring could be avoided. The very fact that their number is legion would prove that none of them are of any avail. Personally, the greatest relief has been obtained by the use of a mixture of one part of the ordinary tincture of iodine to three parts of ichthyol. This seems to relieve the burning and itching, and to some extent prevents pustulation. Prolonged

iodine baths of the strength of one ounce of iodine to a gallon of water, a treatment, by the way, which was devised by Dr. Langley Porter some time ago, seems to give the patients the greatest amount of comfort. These baths are given at a temperature of about 100 to 110° F. and the patient is kept in them for an hour at a time. That the iodine has some virtue is shown by the fact that plain water has not the same effect. The speaker was surprised to find an article in the *Journal of the A. M. A.* in which the writer claimed originality for this method of treatment, but Dr. Porter had antedated him by several years. Trager recommends aluminum acetate fifty parts to a thousand parts of alcohol dipped in cotton and laid over the face. He claims that pitting is checked by its use.

To summarize—there is no possible excuse for the appearance of smallpox in a civilized community at the present day. If it should appear, isolate your patient, vaccinate contacts, and then go forth and vaccinate the multitudes. And smallpox will be a disease relegated to historical treatises.

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### NOTES ON SKIN DISEASES OBSERVED AT THE LETTERMAN GENERAL HOSPITAL.\*

By H. E. Alderson, M. D., Associate Clinical Professor of Medicine (Skin Diseases), Stanford University Medical School, San Francisco, California.

During the period of 1916-19, I had the privilege of serving (unofficially) as consultant dermatologist at the Letterman General Hospital (a military hospital of 1800 beds), Presidio, San Francisco, when over 510 examples of cutaneous eruptions were seen by me. Most of these patients had seen active service in Europe or in Siberia. Only those cases where the diagnosis was uncertain or where treatment was not bringing desired results, were referred to me, so these cases do not constitute all that were in the hospital. For instance only eighteen syphilitics were seen by me, but the total number of luetic patients was very much greater, as the records will show. Probably the dermatoses here recorded were those that ordinarily would have been referred to a specialist anyway, so from a statistical point of view, the report to follow should have the same relative value as the American Dermatological Association reports.

Cases.	Cases.
Acne Vulgaris .....	64
Alopecia .....	1
Alopecia Areata .....	5
Bromidrosis .....	2
Canities .....	1
Chloasma .....	1
Dermatitis Exfoliativa .....	1
Dermatitis Factitia .....	2
Dermatitis Traumatica .....	2
Dermatitis Venenata .....	38
Eczema .....	27
Epithelioma .....	2
Erythema Multiforme .....	3
Erythema nodosum .....	1
Erythema toxicum .....	1
Folliculitis .....	11
Furuncle .....	3
Herpes simplex .....	2
Herpes Zoster .....	2
Hyperidrosis .....	4

Ichthyosis .....	1	Scabies .....	69
Impetigo contagiosum .....	29	Seborrhea .....	25
Intertrigo .....	2	Sycosis .....	3
Keloid .....	1	Syphilis .....	7
Keratosis pilaris .....	2	Early .....	1
Leprosy .....	1	Secondary .....	7
Lichen planus .....	1	Late .....	10
Lupus erythematosus .....	5	Tinea Trichophytina .....	18
Naevus papillaris .....	1	Tinea Cruris .....	107
Oedema circumscriptum .....	1	Tuberculosis .....	1
Paronychia .....	1	Ulcer (varicose) .....	2
Pediculosis corporis .....	1	Ulcer .....	1
Pediculosis pubis .....	2	Urticaria .....	18
Pityriasis rosea .....	8	Verruca .....	1
Pompholyx .....	5	Vitiligo .....	2
Pruritus .....	8	Xanthoma tuberosum .....	1
Psoriasis .....	15	Multiplex .....	1
Rosacea .....	1	Xerosis .....	4

A comparison of the foregoing with the statistics of the American Dermatological Association (based on over 500,000 cases) may be of interest. The fact that this small series represents mostly young men of military age, whereas the Association reports include both sexes, all classes and ages, accounts for the discrepancies in the percentages shown herein. These differences in a measure have some bearing on etiology and are presented here for what they are worth.

#### LETTERMAN HOSPITAL CASES.

	Per Cent.	American Dermatological Association Statistics, Per Cent.
Acne Vulgaris .....	12.45	7.559
Alopecia .....	0.196	2.507
Alopecia Areata .....	0.98	0.877
Bromidrosis .....	0.392	0.065
Canities .....	0.196	0.059
Chloasma .....	0.196	0.3202
Dermatitis Exfoliativa .....	0.196	0.078
Dermatitis Factitia .....	0.392	0.075
Dermatitis Traumatica .....	0.392	0.577
Dermatitis Venenata .....	7.44	2.388
Eczema .....	5.29	18.578
Epithelioma .....	0.392	1.394
Erythema Multiforme .....	0.5882	0.604
Erythema Nodosum .....	0.196	0.119
Erythema Toxicum .....	0.196	0.207
Folliculitis .....	2.156	0.242
Furunculus .....	0.5882	1.846
Herpes Simplex .....	0.392	0.756
Herpes Zoster .....	0.392	0.937
Hyperidrosis .....	0.784	0.4107
Ichthyosis .....	0.196	0.1509
Impetigo .....	5.6862	5.166
Intertrigo .....	0.392	0.2405
Keloid .....	0.196	0.169
Keratosis Follicularis .....	0.392	0.028
Lepa .....	0.196	0.035
Lichen Planus .....	0.196	0.478
Lupus Erythematosus .....	0.98	0.356
Naevus Papillaris .....	0.196	0.024
Oedema Circumscriptum Acutum .....	0.196	0.094
Paronychia .....	0.196	0.214
Pediculosis Corporis .....	0.196	0.765
Pediculosis Pubis .....	0.392	0.268
Pityriasis Rosea .....	1.568	0.484
Pompholyx .....	0.98	0.285
Pruritus .....	1.568	1.421
Psoriasis .....	2.941	2.6506
Scabies .....	13.529	5.9408
Seborrhea .....	4.9	1.851
Sycosis Vulgaris .....	0.5882	0.589
Syphiloderma .....	3.528	9.442
Tinea Trichophytina .....	0.392	0.477
Tinea Cruris .....	20.98	.....
Tuberculosis .....	0.196	0.118
Ulcer .....	0.392	1.6605
Urticaria .....	3.528	3.118
Verruca .....	0.196	1.123
Vitiligo .....	0.392	0.2508
Xanthoma .....	0.196	0.092
Xerosis .....	0.784	0.077
Ulcer (phagedenic) .....	0.196	.....

\*Owing to space limitations, only a summary of this article is here presented. The full article will appear in reprints which can be secured from the author.

In closing I wish to express my appreciation



of the many courtesies extended me by the following medical officers in whose services these patients were seen: Col. Mudd, Col. Northington, Col. Winterberg, Major J. W. Shiels, Major W. C. Chidester, Major H. C. Moffitt, Major Offut, Major Eloesser, Captain Doane, and Captain Petch.

## Original Articles

### THE SIGNIFICANCE OF THE SCIENCE OF OBSTETRICS AND GYNECOLOGY CONSIDERED AS SPECIALTIES.\*

By HENRY P. NEWMAN, A. M., M. D., F. A. C. S.,  
San Diego, California.

Members of the section and guests: In appreciation of the honor of chairmanship conferred upon me by this section, I shall use the ten minutes allotted for the function of opening the session, not in any attempt to compass the field of achievement and progress in the specialties we represent, but in a brief survey of our present position in medicine and our outlook.

The time-honored privilege of section leaders is to recount the statistics of development as exemplified in lists of new procedures and discoveries as well as modifications of older methods. This is now rendered, to a certain extent, superfluous by the very illuminating literature of the day. You are too familiar with current medical history to devote any of the valuable time of this meeting listening to recapitulation. But the vital issues of special practice are not, after all, those of the flesh but of the spirit.

What keeps medicine in an unassailable place, is not knife, needle or suture, nor the skill of the hands that wield them; it is the indomitable purpose to help and save humanity from its own errors, at whatever price. It is just the lack of this vital principle that distinguishes practitioners of the free and unlimited profession of medicine from those of other so-called "schools," whose claim to existence is founded on allegiance to manner and method. If this were better understood there would be less confusion concerning the merits of this and that system.

Gentlemen, we are not here because we are artists or artisans of methods and procedures, but because of our lifelong preoccupation with disease, and our determination to conquer, by mutual study and communication, ever advancing and widening fields of endeavor. The preparation for the right to practice such a profession as ours is being made harder and more exacting every year, and this by our own election. With every year that multiplies practitioners of the easier, "get-rich-quick" schools, we demand from ourselves a *stricter accountability to the law, a greater responsibility toward our patients and a higher standard of ideals in answering to our conscience*. It is not for our livelihood that we follow this science, but for higher values in human life. You will ask, just what bearing has all this on the particular business of this section? And the answer is: Since

we know that all reforms in medicine and all stimuli to progress come from within the profession rather than without; since our advancement never comes in response to public clamor but to our own urge for progress, each branch has its own part to play in the process of evolution, and it is on such occasions as this that the opportunity is greatest. Obstetrics and gynecology, we like to think, have more than proportional share of responsibility. If the body must be whole and healthy, in order that it may allow the mind to functionate in a whole and healthy manner, certainly the pelvic region in women is concerned to the highest degree in maintaining bodily health.

The most poignant issues of life are touched when gynecic disease manifests itself, and what facts of life are more significant to the individual and to the community than those of conception, pregnancy and childbirth? That these shall be realized in the best and most effective sense, to the degree of their highest possibilities for social betterment, is the inescapable business of these branches which concern themselves with the prevention and cure of pelvic ailments.

That *Obstetrics* is something infinitely beyond the cleverest art of midwifery, and that *Gynecology* is vastly more than surgery of the pelvis, is the truth which underlies the existence of these branches as separate specialties. The general surgeon who thinks it no trick to add the practice of pelvic surgery to his general field, has not grasped the significance of this science in its human relations, and the great discovery of the present day, fellow practitioners, is that in the last analysis all arts and sciences converge in human values. The general surgeon cannot compass, in the wide range of his activities, any more than the manual art of pelvis work, and that is not gynecology. Every one who has devoted himself, even for a little to what is involved in handling his cases of gynecic difficulty, has learned that the pelvic region demands its specialists as exclusively as does the eye, ear, nose and throat, etc.

It is no longer thought appropriate for the general practitioner or general surgeon to attempt the intricate and elaborate work of these areas, and the reason for this needs no explanation nor defense.

Very much more is pelvic work, with its involved issues of hygiene, mode of life, social relations, marital and domestic, a personal and elaborate one, worthy of the utmost zeal, and application of one whole lifetime of study. Those who have already devoted to it their years of effort realize how much more than one lifetime could be profitably and rewardingly spent on this one subject. We find, too, how intimately the two specialties which are here brought together encroach upon each other's domain. One advances by the other,—suffers by the deterioration of the other. We also find that the line of demarcation is never lost; that gynecology remains still gynecology, and obstetrics, obstetrics, and that neither can ever be merged into any other branch without loss to medicine; that on the other hand, in common with every other specialty, the conscience of the

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1929.

profession and the sentiment of responsibility must tend to discriminate these branches still further from all others. It is for gynecologists to occupy themselves with the bearing of all aspects of civilization upon the functioning of the sex-life of women and to make authoritative pronouncements upon those which are faulty and result in disease and impairment. And coming to cases, it is for the gynecologist to remember that it is the losing or saving of the individual that counts. It is for the obstetrician to remember that his work counts for two against the one of every other branch, and in this his opportunity is enviable.

It rests with him to carry on such a campaign of education as shall render the public afraid to undertake so serious a step as the bringing a new life into the world without the advice and supervision, during the entire period of gestation, of the ablest obstetrician obtainable.

It is for the obstetrician—and I am repeating what I have recently said before another congress—to remove from the way of the embryo those dangers which make its progress to birth the questionable thing statistics show it to be. It is still more the duty and privilege of this specialty to oversee the condition of the mother from the first advent of maternal hopes to the safe delivery of a healthy child and a safe conclusion of the puerperium.

Finally, to give the practice of medicine in these special branches its true significance, we must bring it more and more to the light of public consciousness that we charge ourselves primarily not with the *diseases* but with the *health* of women, and that co-operation of forces by these specialties offers the greatest of all promises for the advancement of medicine as a factor in human betterment.

1200 First Nat. Bank Bldg.

## THE PRESENT STATUS OF ANESTHESIOLOGY AND THE ANESTHETIST.\*

By ELEANOR SEYMOUR, M. D., Los Angeles.

The administration of anesthetics is an art ancient and honorable, signalized as are few procedures by both divine sanction and usage, for in the second chapter of Genesis it is recorded that "the Lord caused a deep sleep to fall upon Adam and he slept, and He took one of his ribs and closed up the flesh instead thereof." It is cause for regret that there is no detailed account of the induction and maintenance of this first anesthetic but it is evident that the administration was considered of such importance as not to be entrusted even to the Angel Gabriel,—much less an angelic nurse,—and of Adam's safe and satisfactory recovery there is abundant record.

During subsequent centuries, however, surgical anesthesia was not understood or generally employed, the occasional reference is made by early Greek and Roman writers to insensibility produced by certain drugs. It was not until approximately 1840 that a number of American physicians dis-

covered and made practical use of ether and nitrous oxide, and only within the last few years has the administration of anesthetics become a specialty.

During the meeting of the American Medical Association in 1912 there was organized the American Association of Anesthetists, including both the United States and Canada, and in 1915 there was formed the Interstate Association of Anesthetists, since which time strong local and sectional anesthetic organizations have developed east and west and the specialty has been placed upon a firm basis. The *American Journal of Surgery* has become the official organ and the *American Year Book of Anesthesia* an established compilation.

Of special import this year is the launching of the National Anesthesia Research Society composed of distinguished investigators in this field who would further promote original work and make the results obtainable. The object of all these associations of anesthetists is to establish and maintain the highest possible standards in this department of medicine.

To give an anesthetic is one thing, to practice the art of anesthesia is another. The proper administration is more than a mere mechanical performance and involves something more than technical ability.

The term "anesthetist" presupposes the ability (1) to make the adequate preliminary examination or to properly interpret and correlate the findings of others and direct the patient's preparation; (2) to choose the suitable anesthetic and produce a smooth and pleasant induction; (3) to maintain the patient on the least amount of anesthetic consistent with the surgical procedure; (4) to instantly recognize and be prepared to remedy with quiet confidence any untoward symptom which may arise. Such diagnostic, interpretative and remedial skill can only be acquired by a full medical course.

While primarily a consultant as to the ability of the patient to undergo an anesthetic, and the kind and amount to be used, there are anesthetic emergencies in which the anesthetist is commander-in-chief and must be so recognized. For all this and more, only the trained medical anesthetist can qualify.

There are cases in which the surgical risk is as nothing compared to the anesthetic,—where the surgeon deals with the patient's pathology,—the anesthetist with the patient's life. The capable anesthetist knowing the exact condition of the patient can intelligently guide the surgeon as to the advisability of further operative procedures. Intelligent team work and a carefully planned surgical barrage are absolute essentials to the immediate and postoperative welfare of the patient. Each participant must be prepared and responsible for his own acts.

While some surgeons have too willingly accepted the blame for anesthetic failures, ascribing them to surgical shock,—there are others who have unjustly attributed the fatal results of their own manipulations to the anesthetic. A prominent surgeon has truthfully admitted that he can spoil

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the best anesthesia given, by his conduct at the site of operation.

The competent anesthetist suffers more from strain and weariness than the operator, for well he knows that lack of intelligent and continuous watchfulness is the chief cause of both failure and fatality. Did it ever occur to a surgeon that it might be as difficult for his anesthetist to work efficiently in unaccustomed surroundings as for himself? A quotation from the pen of Dr. Frank Bullard touches lightly other annoyances:

The surgeon that's snappy,  
The surgeon that's scrappy,  
The surgeon that scolds every day,  
Whose mouth's full of curses,  
Who rattles his nurses,  
Make many a deadly delay.

The unprepared man,  
With no well laid plan,  
Who new tools must e're sterilize,  
Who loiters and waits,  
Who stops and debates,  
Has a job too big for his size,  
That too timid cutter,  
Who does nothing but putter,  
Accomplishes naught I am sure,  
But it is pathetic,  
How much anesthetic,  
The patient has to endure.

The doctor that's sore,  
Who hollers "Give more!"  
Whenever the patient may flinch,  
May himself be at fault,  
By his heavy assault,  
That causes the patient to wince.

When wearied and harried,  
By thrusts no more parried,  
The patient succumbs and is dead,  
The surgeon will wonder,  
And blame all his blunder,  
Upon the anesthetist's head.

One year ago the anesthetists of this state, distressed by a growing tendency on the part of a few hospitals and surgeons to employ anesthetic technicians,—nurses, stenographers and other lay persons,—organized the Northern and Southern California Societies of Anesthetists, for the avowed purpose of promoting the advancement of the science and art of anesthesia.

An older organization existed in Seattle and the presentation of this paper today is the entering wedge for what we confidently expect will become a joint session of the Pacific Coast Association of Anesthetists and the State Medical Society.

Membership in these societies implies good standing in some county medical unit and is open to all physicians and surgeons interested. While dentists have not as yet been included in the California societies, the co-operation of organized dentistry here has been secured in the move to exterminate the lay anesthetist; while in the Interstate Association of Anesthetists, dentists and dental editors have rendered conspicuous service.

The activities of the local anesthetic societies have been directed toward elevating this branch of medicine to a point beyond possible range of lay competition and the creation of sentiment both public and professional against this abuse. There has been secured through the county units, the

endorsement of a large majority of the membership in the State Society to the following resolution:

"Resolved, that this organization go on record as in favor of the limitation of the *regular* practice of anesthesia to licensed physicians and dentists."

Unfortunately the average state law is no more specific in regard to anesthesia than to other medical branches. However, in the opinion of numerous attorneys from New York to California, the medical practice act *does* cover anesthesia, for as the law now reads, "*any person who shall diagnose, treat, or prescribe for any disease or physical condition without a physician's certificate shall be guilty of a misdemeanor.*"

To quote from an opinion rendered March 29, 1920, by Attorney Harry A. Encell, Chief Counsel for the California State Board of Medical Examiners, "One who is not licensed and administers an anesthetic, is subject to the penalties of Section 17 of the California Medical Practice Act, because one cannot administer an anesthetic unless a diagnosis and treatment is performed. . . . In case of an operation it is necessary to administer more or less of the anesthetic and in so doing the one who administers it is guided by his own diagnosis as to what amount should be given and when. The surgeon who is performing the operation is not always in a position to direct the administration, and therefore must rely upon the one giving the anesthetic; hence the giver of the anesthetic is violating Section 17 of the Medical Practice Act of this state."

The attorney for the American Medical Association has also rendered the opinion that the administration of anesthetics is the practice of medicine.

The administration of a general anesthetic is the giving of the most powerful and dangerous drug at the most perilous time of the patient's life and an anesthetist represents himself as being competent not only to diagnose conditions but to administer emergency treatment should indications arise. A nurse is neither licensed nor permitted to order the preliminary opiate nor prescribe the stimulants and restoratives which may be indicated although with strange inconsistency she may be allowed to administer an anesthetic, the most powerful of drugs, and this for hours at a time.

An eighth grade certificate,—for hospital entrance requirements have of necessity been lowered of late,—and the meagre medical and surgical training that a nurse receives do not qualify her to give anesthetics, and the public is becoming aware of these facts.

The claim of the attending surgeon that he supervises the anesthetic is usually a subterfuge, as most anesthetics are begun in an adjoining room or at least during the time when the operator is occupied with his own preparations,—and anesthetic deaths are most frequent during the stage of induction. During the surgical procedure the operator cannot divide his attention and do justice to his work, and it would surely reflect unfavorably upon him, especially in case of surgical accident, should he admit a voluntary ar-

rangement whereby his attention was diverted from the delicate operation in hand. Neither would it be to his credit to assume responsibility in case of anesthetic accident, for no one can "live the rhythm of the anesthetic outside a radius of eighteen inches from the mask."

While many of the older surgeons are capable anesthetists, it is a fact that because so little attention is now being paid to instruction in anesthesia the majority of the young surgeons are not competent to supervise their anesthetists should it be even a possibility.

The fact that a few of the large eastern clinics, with unlimited material and opportunity for observation and *every safeguard* have developed nurse etherizers, is no argument for turning over anesthesia to nurses as a whole.

The few cases where a nurse is retained for her real worth are so exceptional as to be negligible and impossible of consideration in establishing precedents. Moreover nurses are insufficient in number, are limiting their hours and raising their prices and it is difficult if not impossible to secure the necessary attention for the sick. To take anesthetic work from an overcrowded profession to which it legitimately belongs and thrust it upon nurses whose services are so greatly needed in their own field, does not appeal to reason.

A nurse's quicker intuition, sympathy for her patient or concentration on her task cannot be charted or justified in court. There are women physician anesthetists and there are many more physicians, both men and women, who would gladly equip themselves for this dangerous and absolutely essential work should recognition and adequate financial recompense be assured. Honest persons will admit that it is the financial exploitation of the nurse which makes her chiefly valuable as an anesthetist. She is in most cases paid a modest salary and her anesthetic fees accrue to the hospital or surgeon employing her, at a profit which is a far greater menace to the profession than was fee splitting. There is the exceptional situation in which a nurse maintains an independent practice in anesthesia and in such case is unquestionably trespassing upon the practice of medicine.

Instances can be cited of eastern hospitals where medical anesthetists are absolutely debarred and others where surgeons are terrorized into using the house technician, by threats of being dropped from the staff,—while in some institutions the patient of a surgeon who employs a medical anesthetist must pay a like anesthetic fee to the hospital. As a result of these money-making schemes, competent anesthetists are being forced out and surgery itself is greatly hampered. The anesthetic service is not the proper place to make up a hospital deficit.

To claim a shortage of physicians is scarcely accurate as there is one physician to every 720 of the population of the United States and about one to 200 in the large cities where the anesthetic technician abuse is most common. The report of the Council on Medical Education of the A. M. A., is to the effect that "not greater numbers but

better qualified physicians are needed." In a scattered population one anesthetist may take good care of several communities. As to a shortage of interne material, why should the anesthetic service alone be relegated to nurses? They become quite adept in minor surgery and obstetrics.

The work of the American Hospital Association and College of Surgeons, in their program for hospital standardization is in many respects highly commendable but it is to be regretted that the officers in many instances have become exploiters of the nurse anesthetist, and where such is the case, anesthetic standards both within and without the profession are debased,—as instance Ohio, the only state where nurses are in any sense legalized to give anesthetics, the death rate is in excess of one to every 500 administrations.

Contrast with this the record of the Royal Dental Hospital of London where 1,500,000 anesthetics have been given by a staff of seven medical anesthetists without a death. The United States has to her discredit proportionately more than three ether deaths to every one in England. There are no statistics covering post-operative anesthetic deaths and delayed recoveries, but it is interesting to note that the outstanding researches in post-operative acidosis have been conducted in a large Pennsylvania clinic where lay anesthetists are continuously furnishing abundant material.

A distinguished British surgeon in attendance at the recent A. M. A. meeting, remarked with disgust, "Can it be possible that nurses are still permitted to give anesthetics in your country!"

. . . That the socialization of medicine on the basis of a nurse's salary has begun, and is rapidly extending to the various branches of the profession should give us pause. The profession and the public of the State of California overwhelmingly defeated compulsory health insurance, the greatest evil of which is contract practice. Lay technicians in anesthesia, X-ray and laboratory service introduce all the evils of contract practice.

This year the chiropractors are loudly acclaiming their rights and it is interesting to note that they are using the inconsistency of the regular school in allowing nurses to give anesthetics, to further their own legislative aims. This is a matter of far more than state-wide importance.

There is no intention on the part of anesthetic associations to exact the unreasonable and by common consent, non-operative obstetric work and emergencies of every kind are excepted. The surgeon has no quarrel with the layman who in emergency renders first aid, though unskillfully, to his injured fellow,—it is the *regular* practice of his art to which he takes exception. So with the medical anesthetist.

Neither is there a desire to limit the administration of anesthetics to the specialist, for in a scattered population this task must fall to the lot of every physician. Their fundamental work lies in improving the quality of their own anesthesia and securing the establishment in medical schools and teaching hospitals of adequate student and post-



graduate courses so that every physician will have some practical knowledge of this branch. As a result scientific progress in the as yet little known field of anesthesia will be assured, and the surgeon will more readily procure the better anesthetic service to which he is entitled.

Our desire?

The endorsement by our State Medical Society of this effort to limit the *regular* practice of anesthesia to licensed physicians and dentists.

ELEANOR SEYMOUR, M. D.,

Secretary Southern California Society of Anesthetists, and Vice-Pres. American Association Anesthetists.

Los Angeles, May 12, 1920.

Discussion opened by Dr. Mary E. Botsford, San Francisco. Discussed by Drs. Wm. Duffield, Los Angeles, Clarence Moore, Los Angeles, David Hadden, Oakland, George Piness, Los Angeles, C. P. Thomas, Los Angeles, Lt. Col. Grubb, Los Angeles, T. J. Cox, Sacramento, Stanley Stillman, San Francisco, O. O. Witherbee, Los Angeles and Dr. A. B. Cooke of Los Angeles.

#### SOME RECOLLECTIONS AND OPHTHALMOLOGIC OBSERVATIONS FROM SERVICE IN THE

##### A. E. F. IN FRANCE.\*

By VARD H. HULEN, A. M., M. D., F. A. C. S.,  
Berkeley, California.  
(Recently of San Francisco)

As only a few members of this section had service in the A. E. F., some observations based on my experiences "over there" may be of more interest to you than a scientific effort limited to fifteen minutes, and a discussion of my deductions may be of some practical use even now.

The goal of every medical man who early volunteered his services was naturally France, so that when directed in September, 1918, to join B. H. 104, then almost completely organized at Camp Dodge, Iowa, destined for overseas service, I was relieved from the suspense of having waited nearly six months for overseas orders.

Our organization consisted of 36 Commissioned Officers and about 250 men in the medical detachment. The staff of nurses joined us on the other side.

Suppressed excitement universally prevailed while feverish preparations were rushed for the final order to entrain. Reducing our personal baggage to the required weight and still retaining the necessary equipment for overseas service was the source of much anxiety and amusing demands upon the steelyard loaned by the neighboring Y. M. C. A. house. We expected to be away two or three years at least.

The journey east was a dream of elegance—compartment cars for officers, tourist sleepers for the detachment with plenty of good food in our mess-kits. After numerous soul-harrowing experiences at Camp Upton, L. I., from orders and counter orders, our organization finally got under way. Every officer and man weighted down with full field equipment on his back, marching in

silence, a pitch dark night, in a driving rain to the train to carry us to the dock. But our spirits were bright and our hopes for service soared. After sitting in the cold cars for hours thoroughly soaked and without food some of us were apprehensive about passing the "rigid and last" physical examination awaiting us just before stepping on the boat. I was in mortal terror that the little sore throat I had developed during that awful night, the only time I had sign of any illness, would at the very minute of attaining my goal, end my chances. But as the examination consisted only of taking my temperature I stepped aboard the magnificent "S. S. Mauretania," a member of the A. E. F. This was our last experience with elegance, or comfort.

Our ship packed to the guards with all kinds of military organizations, officers of high rank of the Allied Forces, titled officials and statesmen, stole out of her berth and promptly headed for the "unknown port of destination." Accompanying us were four racing torpedo destroyers, air-

The "Mauretania" was such a fast craft she planes crossed and recrossed overhead, with observation balloons about, we were thrilled to the very bone.

did not travel in a convoy. The military discipline and requirements maintained so rigidly, the constant wearing of the grotesque life-preservers, the rules of no exposed lights, not a match or cigarette on deck, the constant lookout for submarines kept us in awed mindfulness of our serious mission.

In less than six days Liverpool received us with numerous bands and flying colors most touching. Here we first learned of the serious food conditions in England from American women war-workers who appealed for our uneaten stale sandwiches. A restful march through the streets of Liverpool to the train, a moonlight journey landed us at Winchester at 2:30 a. m. A long hike through the beautiful country and up a high hill brought us to the first unrestful "rest camp" with its vermin-infested bunks and poor food. Crossing the channel in a tub we marched for many weary miles to what seemed to us then the limit in rest camps for human beings. We slept on solid board shelves in tiers with only thin ragged damp blankets as bed and cover, no fires, no bathing facilities, undreamed "sanitation." For toilet purposes we waited in rain and wind-swept sheds, balancing on a much-used common galvanized bucket with a standing-room only audience, surely would make constipation and hemorrhoids the rule in such "rest camps." The Y. M. C. A. here furnished good food to officers for which we gladly paid top-notch prices. Such did we officers experience; as for the men—. Thus did our Government provide for its loyal sons arriving for duty in France.

Marching again at night our B. H. then entrained at La Havre with an artillery organization and started on a three-days' journey to Bordeaux, before the war made in eight to ten hours. The officers occupied old flat-wheeled, third-class day coaches, while our detachment boys worn to

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a frazzle packed forty in number to each ordinary stock car. I marveled at their lightheartedness when they mooed and bleated in excellent imitation of the animals whose transportation they were using. And thus we bumped along to the American quarters at Beau Desert ("Beautiful Desert"). Anyone who was at Beau Desert knows that a "desert" need not be a dry country.

The hospital organizations already located in Center No. 2 shared with us their bountiful messes, and warm shower baths which soon made us fit. Rapidly we took possession of the hospital space allotted and at once received our share, 1500 or more, of the arriving sick and wounded. Our professional service in France had begun.

Six base hospitals similar in organization to our own composed Hospital Center No. 2; surrounding us were several camps of other branches of the service, an extensive convalescent camp adjoined, sunken apparently in two feet of soupy mud. Also in our Center were two large camps of German prisoners of war, and several foreign labor camps, mostly Chinese. These supplied us with material also. It was said that this Center was planned, when completed, to care for 60,000 patients, and ultimately could be expanded to 100,000 should the war continue.

From the General Headquarters of the Center the arriving convoys of "sick and wounded" were apportioned to the different base hospitals. A plan to centralize certain classes of cases was successfully carried out. All the contagious cases, for instance, were sent to 106, all orthopedic patients to 14, all facio-maxillary cases to 22, etc. Our hospital got the unenviable opportunity of caring for all sick and wounded commissioned officers, and the enviable opportunity of the convoyed eye and ear, nose and throat patients our addition to general assignments.

The Center patients usually came in convoys of two, three or more long trains of the beautiful Red Cross hospital cars. Their arrival, usually on rainy nights, was heralded by long blasts of the peculiar shrill whistles of the foreign locomotive, at the sound of which everyone was expected to go to his ward or post of duty "toot sweet." The patients were carried from the cars on stretchers by our detachment men, or if able walked to the receiving office. Never were any sheds provided them as shelter from the constant rain and cold, and only later were even landing platforms laid to keep them out of the ever-present mud, though at our door were millions of feet of suitable lumber going to waste and plenty of idle labor in our camp. This was just one of the innumerable instances of the folly of having to wait for orders to filter through "military channels" for perfectly evident necessities. All patients had envelopes pinned to their clothing in which were their field cards, wound tags and other available records. On the face of these envelopes was recorded the major diagnosis of the case. A quick glance at them by our receiving officer and his assistants gave the information necessary to distribute the patients to their proper wards. First ambulant patients were stripped in bath rooms and searched with

flashlights for "cooties." The eye and ear, nose and throat patients were assigned to the same wards; the latter cases handled by Captain L. Shields, and the eye cases were in my care. The clinics, however, for these were separate.

In our Center the Eye Clinics for all base hospitals, excepting one, were consolidated, so that in the "Central Eye Clinic" three Majors, a Captain and a Lieutenant worked harmoniously together. This, I believe, was an advantage to the patients and by such an arrangement every eye man was enabled to get the benefit of examining all the important and interesting cases coming to the entire Center. We had on duty also in this clinic a Sergeant, mainly for refraction and optical work, a Corporal for clerical routine, and a special eye nurse (female). We had morning, afternoon and evening hours, thus many patients were treated in the eye clinic three times a day to reduce the ward work. Our facilities were primitive but well arranged and our equipment most complete. All we could ask for even at home, but an ophthalmometer; for instance, four kinds of eye magnets in our operating room. Thanks are due largely to the Red Cross centering their efforts at Milwaukee for our splendid equipment. The service given our department by the Laboratory was exceptional, as was our X-ray and localization work.

My observations were made in the Bordeaux district, excepting for a view soon after signing the armistice of the battle fields and their environs—Chateau Thierry, Rheims, the Argonne, St. Mihiel and Verdun, and a "peek in" at Paris.

In the observation of the wounded I was first impressed by the large number of our patients who arrived with one eye already enucleated. The eye retained was often more or less injured, but personally I saw not more than two or three who had hopelessly lost the sight of both eyes. It is likely so many primary enucleations had been done because of the naturally extensive globe wounds received in battle; or the eyes contained non-magnetic foreign bodies impracticable to remove, therefore immediate enucleation was the means to safeguard the other eye. Too, it was evident that additional mutilations would demand subsequent facial plastic work. But our orders were to do no operations not at once urgently required, this in face of the fact that some of the wounded remained in our wards for many weeks.

Amongst the battle-scarred patients I noted many conspicuous mutilations from mule kicks. Evidently "No Man's Land" had nothing in terrors on the mule pens.

Instructions to implant glass balls after our eviscerations were general, but I am not yet favorable to this procedure.

The most interesting new traumatism to me were those caused by gas. Even mildly gassed eyes seemed never ending as regards photophobia and blepharospasm, profuse lachrymation and extreme hyperemia, these symptoms frequently continuing for weeks and months in the absence of explanatory lesions. Aside from these numberless gassed eyes, and by order the use of antitetanic



serum after all our surgical procedures, as well as after all other traumatizations, the uniqueness of our experiences as ophthalmic workers was more in the number and extensiveness of the wounds than in their novelty.

There offered an unlimited field for observing congenital anomalies and diseases. I could never understand how these very evident eye defects, such as extensive syphilitic lesions, retinitis pigmentosa, colobomas, polar cataracts, corneal leukomas, squint, amblyopia, exceptionally large errors of refraction, etc., could be found so numerous in overseas service when our instructions at Camp Dodge were to exclude those with far less important visual disturbances examined for the A. E. F. These inexcusable errors cost the American people large sums and entailed undesired hardships and dangers to the unfit men.

The idea of sending complete optical equipments over with certain base hospitals was an inspiration. Their aid in restoring quickly a useless soldier without his glasses to a valuable one was great. But when the stock of lenses could not be kept up and supplies sent out were unreasonably slow in reaching their destination, the optical department became an aggravation; and when a few blue artificial eyes for the left side remained to those who had lost brown right eyes it became a grim joke.

One of the great advantages on the other side, after the cessation of hostilities and reduction of hospital work, was the opportunity to attend special clinics in military hospitals of enormous material in England and elsewhere, and the three weeks' courses in the eye clinics of Paris given by Morax, Sebileau and Lemaitre. We at Beau Desert only a few minutes from Bordeaux, had the good fortune to see at all times the wonderful plastic and other eye work of Prof. Lagrange with his limitless material in the French Military Hospitals in Bordeaux, as well as his own large University Clinic. His courtesy and kindness to American oculists were proverbial. Time does not now permit me to more than allude to his prodigal use of rib cartilage in plastic eye work, and to his original operations for making, both primarily and secondarily, a floor to support a prosthesis. These operations are now described in the literature.

In my conclusions the first suggestion towards helpfulness in the event of future emergencies of war, would be that eye surgeons of experience be held to professional work and not subject to administrative duties. Some of our widely known ophthalmologists did not treat an eye patient in months of their service. I do not refer to those of our specialty in the office of the Surgeon-General who rendered such splendid executive service there and elsewhere during the war.

Secondly, skilled specialists should be kept always in their exclusive fields; this for the good of the wounded. I know on one occasion that the ear consultant was operating on an injured eye while near by the ophthalmic chief was operating on an ear case. I was fortunate to be assigned to eye duties alone.

Thirdly, mature specialists should be sent to the scene of activity without delay. I learned over there of the need for competent additional eye service at the time some of us were training in "paper work" in home camps.

Fourth, complete recognition of the usual specialties in medicine by the military authorities and the fullest use of them as specialties in war conditions even close up to the battle line I believe practical. The endeavor to make "any man work anywhere, at any time"—that is inexcusable extravagance of man material, though it may be cheaply obtained.

Fifth, it is my conviction that the ophthalmic surgeon in active military service should be as independent of the chief of the surgical, or any other, section as he is independent in private practice. Ophthalmology cannot successfully be made a sub to war surgery nor should it be regarded as minor surgery. It, as well as orthopedic or brain surgery, should be an entirely separate department with direct responsibility clear back to its individual head in the Surgeon-General's office. This belief I hold regardless of my invariably pleasant experiences with all surgical chiefs under whom I served from start to finish of my military career.

Sixth, a medical man should not be commissioned until it is known that in addition to technical skill he is honest and has common sense, he should then be permitted the unhampered use in a reasonable way of his abilities. This until he has been proven untrustworthy. A valuable medical officer taken out of civil practice may be ruined by a fruitless effort to make him a part of a military machine.

Seventh, medical officers should be reasonably trained physically and mentally for hardships, but their military service should not be a constant test of endurance nor useless deprivations of common decencies. To plan for inexpensive personal comforts need not take the soldier out of a man.

Eighth, long distance control of eye patients not the best. Let the local men with their consultants decide the movement of the individual sick and wounded. If found to act unwisely, replace the local chief with a man of better judgment.

Ninth, the system of consultants in the various departments as developed in the A. E. F. was in my observation the acme of success. My last service in France was ophthalmic consultant for Hospital Center No. 2 and the Bordeaux district. When full use is made of this system the capability of each worker is manifested. Efficiency and facilities may be constantly developed until all patients have expert medical and surgical attention. By this system the inexperienced may safely do their assigned work, those of the greatest skill and ability render full and invaluable service, at the same time attain the utmost professional and personal success and recognition.

Some day a similar system in civil practice may be advocated to work out an approach to idealism in the practice of medicine—a much to be desired accomplishment.

Berkeley Bank Building.

## CALIFORNIANS ON THE ITALIAN FRONT—HISTORICAL.\*

By THOMAS C. MYERS, Major M. R. C., Los Angeles.

Through the generous gift of \$100,000 by Mrs. Diebert of New Orleans a hospital unit was organized in the United States known as the Loyola Unit, afterwards accepted by the U. S. A. as Base Hospital No. 102. The selection and organization of the nursing corps were delegated to the Sisters of Charity who were peculiarly fitted for this duty by reason of their management of many hospitals and training schools throughout the United States.

From California were selected fourteen nurses, Misses Bessalo, Brazee, Cornette, Kolmar, Pibel, Ringsmith, Sherbok, graduates of St. Vincent's Training School at Los Angeles, Julia Frabucco of L. A. County Hospital, Misses Brunoni, Stradling, Mulvaney and Clark of Trinity Hospital, San Francisco, Miss Esola of Roosevelt Hospital, Berkeley, Miss Ferriera of St. Mary's Hospital, San Francisco, Misses McCort and Corti from Bakersfield. Besides the writer, one other officer, Lieut. Wildman of Placerville, was from California.

Base Hospital No. 102 was assembled at Camp Bauregard in the first part of July, 1919, under the command of Lieutenant Colonel Erskine Hume. After a brief training the unit was moved to Baltimore where it was joined by the nursing corps and sailed on the S. S. Umbria, an Italian ship, from Baltimore on August 4, and after a prolonged voyage of three weeks disembarked at Genoa.

An interesting episode en route occurred on the second day out, in which fifteen men in a life-boat were rescued from the U. S. S. Jennings, which had been torpedoed and sunk eighteen hours previously by a German submarine.

It is interesting to note that the S. S. Umbria carrying over 100 American women went through the danger zone, which at that time was very active, without a convoy. The sanitary conditions of the boat were poor, plumbing broken down, refrigerator plant out of commission, inadequate ventilation, compelling most of the nurses to sleep on deck, but in spite of all this no serious illness developed during the voyage.

Being the second American troops and the first hospital section to arrive in Italy, the populace of Genoa turned out en masse to extend their welcome. I had the opportunity of visiting the Ospidale Militare in charge of Professor Capurro, Chief Surgeon. He was operating with very few instruments most of which were obsolete and worn out. However, he spoke with glowing terms of the American rubber gloves of which he had just received a consignment. His work was first class and his operating technique excellent, and a very profitable morning was spent in his company.

I did not know until after my return to New York City that the American gloves and the

few new instruments which he had, were directly due to the generosity of a former San Francisco surgeon, Dr. De Vecchi. Soon after the beginning of our participation in the war, Dr. De Vecchi was anxious as an American citizen, to do something for his former countrymen, and finally devised the following excellent plan. He purchased in New York a large number of the surgical instruments most commonly used in the average operation. These he segregated into different packages, and together with a generous supply of rubber gloves, ligatures, and other operative paraphernalia, wrapped them in waterproof packages and sent at his own expense, to the various leading surgeons of the Italian army to be used as they saw fit. It was from this valuable contribution that Professor Capurro had received his stock of American gloves.

Hospital No. 102 moved and established its base at Vicenza, September 7. Vicenza at that time was a center for about 50,000 Italian, and a like number of allied troops. It was in the Zona de Guerre and air raids were no uncommon occurrence. It was about 20 miles from Mt. Grappa, which was the key at that time of the Italian front.

The leading military hospital at Vicenza was known as the Ospidale de Tappa, which accommodated 2000 patients ordinarily, and double that amount during a rush. Our arrangements with the Italian authorities were such that we received the Italian wounded as well as American, and practically all through the year the proportion of Americans to Italians was about 1 to 4. All the wounded from the front were distributed to the various hospitals in Vicenza directly from the Station Yards or from the Ospidale de Tappa.

There were many hospitals in Vicenza, and on odd occasions we had some opportunity of visiting them and observing their methods. As is well known, Italy is the home of the hernia operation and Bassini, the father of hernia operations, lived only some 20 miles away at Padova. He is now rather elderly and only operates on special occasions. Several appointments were made to see him, but on account of other activities we were unable to make connections. However, several of his associates and assistants were in Vicenza and we all had an opportunity of seeing their methods.

The Bassini followers still use silk to sew the conjoint tendon, and the true Bassini operation as I found in Italy, consists of the incision and stitching of the transversalis fascia with the conjoint tendon to Poupart's ligament. The hernia operation is one operation to which the Italian people will submit, and many soldiers were glad to avail themselves of the opportunity to get away from the front line for a brief rest while in the hospital having their hernias repaired. There were two surgeons at the Ospidale de Tappa operating there who were at times, during lulls, constantly busy repairing hernias. These men used catgut, cotton gloves over rubber to facilitate separating the sac from the cord, a very superficial incision which facilitated the

\* Address delivered at Los Angeles County Medical Society.



tearing of the superficial fascia obviating the necessity of ligating the superficial veins, and in closing used a running buried stitch returning on the superficial fascia, followed by skin clips and always a double spica.

Professor Marro of Turin was the chief surgeon of another hospital in Vicenza. He used silk, did not cut through the external ring but through the external oblique about one-half inch above the ring. This gave him a strip of fascia to act as a tractor in disclosing the shelving portion of Poupart's ligament, and obviating the necessity of forceps to pull it in position while introducing the stitches from the conjoint tendon.

The first patients received in our hospital were flu, and the last patients to leave were flu. The first surgical cases with which we had to deal were mustard gas. The story of this batch of gas patients is rather romantic.

On a sector close by, the Italians and the Austrians had been fraternizing, and finally having annoyed each other while bringing up the mess, they decided by mutual agreement that no firing be conducted during this time. Both Italians and Austrians enjoyed a siesta after eating, especially at noon. Consequently an agreement was made not to fire during the rest hour after lunch. The Italian commander got wind of this little situation and decided that his men were becoming too friendly with the Austrians. So he pulled them out and sent in a regiment of British, who always believed in keeping their guns busy. Next day they pounded at the Austrians all day long, and it made the latter mad to think that the Italians had gone back on them, and so they gassed the entire line for miles on each side. Consequently the hospitals in that vicinity were soon filled up with gas patients. The ones we received were chiefly mustard gas cases, the characteristic features of which are too well known to be enumerated.

At the latter part of October the last offense started, and the real wounded began to arrive in large numbers. We then acted as an evacuation hospital, and it was impossible to keep the patients long, having only sufficient time to observe them for a few days.

The American troops in Italy did not play an extensive part in the offense. They had been destined first to be used in camouflage play. The Italian commander in charge had them camp about one-half day's march from the Piave, and after a few days' rest marched them to the river on three different parallel roads carrying full equipment, and separating the different companies as far as possible. That night they returned to their base. The following day this maneuver was repeated, only wearing a different type of head gear, and marched again back to their base after dark. This maneuver was again repeated, and during the time this was going on, the aeroplanes were busy dropping propaganda on the Austrian lines telling them to watch the Americans. This was so successful that it even confused the Italian troops. Those 4000 odd Ameri-

cans were multiplied to 100,000 in the imagination of the Italians and 500,000 in that of the Austrians.

American operating teams from Base 102 were sent to the front. In company with a lieutenant, I was sent on detached service to the Italian Army, and was sent to Cordigiana to take over a field hospital. I arrived there at 10 o'clock at night. The hospital was filled with Austrians, which had been abandoned, the hospital corps had retreated three days before, and at least two days before the Austrian troops, leaving a wounded Hungarian surgeon to look after the patients. On account of his wound, he had been unable to do very much, and the place was in rather a chaotic condition.

At 3 o'clock in the morning, the lieutenant and myself were awakened by the arrival of the wounded which continued in a constant stream from that time on until November 5. The exact numbers that came, and where they went, we did not know. They came in the front door, were placed on the table, an examination was made, what was necessary to be done was performed, and the patient went out the back door, and the ambulance moved them farther on back.

The equipment was very meager, no gloves, few instruments and lots of pus cases. I telegraphed for a field outfit back to the Piave by courier. They received this telegram about two weeks later, at which time we had practically closed the hospital. The Austrians had, however, left a large supply of paper, cotton, splints, alcohol, excelsior for splint padding, and something that had not been obtainable before, novocain.

When the armistice was signed, of course the stream of the wounded greatly slackened, but as the civilian population returned, they kept us busy repairing the children whose curiosity in picking up bombs which were thickly scattered around the country resulted in many accidents.

The Austrian prisoners came by in thousands, a most dejected and despairing bunch.

An Italian doctor had charge of the medical side, as the flu was with us, with myself in charge of the surgical.

A rather delicate subject arose concerning the Hungarian doctor at meal times. Finally the Italian doctor asked me if I had any objection to eating with the Hungarian. I told him I thought I could stand it if he could, and would be very glad to have him. He was a doctor entitled to the courtesies of other doctors. So the Italian Chief extended the courtesy of the mess which was rather scanty to the Hungarian doctor, and an incongruous crowd assembled at the first meal. The Hungarian could not talk Italian, and spoke only German and Hungarian, the Italians could not talk Hungarian, and I could talk neither Italian nor Hungarian.

Later on it was necessary to move up with the Army to the Austrian line. We evacuated our hospital and moved up near the Austrian border. At this point it might be wise to remind the Americans that the Italian devastated dis-

trict is almost as large as that of the French. The civilian population suffered greatly.

I returned to the Base about the 24th of November, in time to assist in taking care of the flood tide of the wounded which was well back by this time. Later on, I visited the various hospitals and universities of Italy, probably the most interesting of which was a day spent at the University of Boulogna. In the lecture hall of this university is a marble tablet on which is inscribed the names of the demonstrators of anatomy in chronological order. The first one was posted in 1131 A. D. Many familiar names were noted as Bartholamo, Versalio, Malpighi, Valsalva, Manzolina (man and wife) and Calore.

In the museum a great many of the original dissections are copied in wax. The wax figures of Valsalva depicting dissections on the heart, eyes, foetus within the membranes filled with fluid, the entire circulatory system in different colors, veins, lymphatics, arteries, etc., a skeleton of an embryo 45 days old, and complete studies of embryology in wax. Original dissections of Malpighi's and Monzolina are still preserved, but the wax anatomical studies molded by these skillful artists leave a memorable impression upon one's mind.

Also at Bologna is situated the Instituto Ortopedico Rizzolo under the charge, at present, of Professor Putti, the famous orthopedist. It was here that I first saw the cinamatic formation of stumps whereby when amputations are performed, tunnels of skin are created under the skin and tendon groups, for the attachment of rings from which cords are extended to the artificial limbs giving great facility of movement especially of the wrist and fingers.

The most complete work in this nature was later on seen at the Hospidale Militare at Verona where a department of this special branch of surgery was conducted by Captain Pieri. At Ridoletto on Lake Como, I visited the neurologic hospital conducted by a former Angeleno, Dr. Alex. Jardini. To this hospital were sent all the wounded suffering from neurotic contractions following wounds. Their method of treating these patients was very successful and exceedingly interesting. All the patients upon admission were carefully examined, especially electrically, to determine whether or not the contractions were functional or pathological. The latter were rejected for treatment. The neurotic contractions of which there are varieties simulating all known pathological contractions were upon admission, placed in a room by themselves under lock and key. All tobacco and wine were withdrawn, the intimation given at the same time, that as soon as they had recovered, these luxuries would be restored. The patient was instructed to massage the contraction himself. No medicine or appliance of any kind were used. Psychological impressions, of which those coming from the cured patients were the best. Most of the cases were sufficiently well in two weeks

to be removed from their restriction, when they were allowed to go to the common dining-room, with the wine and tobacco restored. The latter part of the treatment consisted of instructions and gentle exercises in the form of garden work. The results were marvelous.

March 1, 1919, found our work in Italy practically completed. The monotony of waiting for sailing orders was relieved by being sent to Dalmatia on a sanitary commission.

Returning by way of Rome, I visited Bastionelli's Clinic at the Polyclinico, and received a warm welcome. This wonderful surgeon is well known in the United States, having visited here on several occasions, and the Americans are always received by him with the greatest of courtesy.

During the time of our duty in Italy, one could not help but be impressed by the courteous manner in which we were received at all times by the Italian physicians and surgeons. The scientific world owes them a great debt of gratitude, for unless one has been on the ground, he cannot realize the hardships and privations which they underwent after the great retreat in which they lost 500,000 beds.

These wonderful men continued their work laboring under the lack of proper food and materials, administering and relieving the suffering of their army without a murmur of complaint.

1501 South Figueroa Street.

#### END RESULTS OF RADICAL AND CONSERVATIVE PELVIC SURGERY\*

By ALICE F. MAXWELL, M. D., San Francisco, Instructor in Obstetrics and Gynecology, University of California Medical School.

For many years, gynecologists have been keenly interested in two problems, namely, the proper treatment of chronic pelvic inflammatory disease in women during the child bearing age, and the conservation or removal of ovaries with hysterectomy.

The material for this study has been furnished by the records of the Woman's Clinic of the University of California Hospital and consists of 446 cases. In order to obtain a clear and accurate impression as to the postoperative results and sequelae in any compilation, it is very essential that a report be obtained of consecutive cases of the series. With this object in mind, by means of a follow up system, we have been able to make detailed observations over a period ranging from six months to four years after operation. One month after discharge from the Hospital, the patient is told to report to the clinic for an examination and her condition is recorded. Two months later a similar report is obtained and the observations are continued at intervals for one year. If at the end of that time, the woman's condition is satisfactory, she is asked to return every three to four months. Should the patient fail to report to the dispensary one month after operation, she is notified by mail to do so and is

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



visited by a nurse or social service worker who explains the necessity for post operative examinations. By means of such a system, we have been able to make comprehensive observations on 95 per cent of the post operative cases. In addition to this data, further information has been gathered by means of several questionnaires which have given in detail the patient's impression of the amount of relief afforded by surgery and the occurrence of post operative sequelae. A third check is afforded by a study of the patient's hospital record before operation. By means of these methods, i. e., follow up notes, questionnaires and hospital histories, we believe we have drawn conclusions with a considerable degree of accuracy.

#### CONSERVATIVE SURGERY

The results of conservative surgery in the pelvis has been a subject of much controversy, the general feeling being that it has a very limited field and is usually of questionable therapeutic value. There is no doubt but that the majority of observers have not agreed upon a common definition. Our discussion does not concern the proper treatment of purulent masses in the pelvis or a tuberculous infection. Plastic surgery on pus tubes should be classed as meddling. We define conservatism here as allowing structures to remain presenting slight macroscopic pathological changes. To facilitate a review of our conservative material, consisting of eighty-two cases, the study has been considered from the standpoint of

1. End results of pelvic infection if left to nature.

2. Amount of relief afforded by plastic surgery on pathological adnexa and the probable necessity of secondary operation as the result of such treatment.

3. Frequency of subsequent pregnancies.

4. Importance of maintaining the physiological functions of the pelvic organs.

1. It has been shown that a gonococcus infection produces marked destructive action on the tubal mucosa, destroying the epithelium and producing coalescence of neighboring or opposing folds of mucosa. 62.5 per cent of closed tubes are undoubtedly the end results of a Neisserian infection. Plastic work on such structures can never restore the essential histological constituent of their functional activity, namely the ciliated epithelium. On the contrary, such treatment must be but merely palliative or else it will lead to the formation of adhesions with their sequelae and be the etiological factor for a secondary operation. We have had three such cases in our series which required a complete removal of the diseased adnexa and uterus before any relief was obtained. In contrast to the total destruction of the tubal mucosa resulting from a gonococcus infection, the streptococcus, staphylococci, and other pus organisms are frequently more mild in their end results and the integrity of the tube may be restored if left to Nature or by instituting drainage. It is with this type of case that conservative surgery may be followed by subsequent pregnancies.

2. When we consider the question of relief of pelvic symptoms afforded by conservative surgery, it was found that 75 per cent. of the women were completely cured, 20.7 per cent. partially relieved and 3.7 per cent were not helped by operation. The symptoms were aggravated in three cases and a subsequent operation was necessary. While a series of 82 cases is not sufficiently large to warrant any definite conclusions as to the absolute value of conservatism, yet 75 per cent. of cures would appear to justify an attempt to save the pelvic organs, especially if the woman was desirous of future pregnancies and the adnexa were not so destroyed as to mitigate the value of the procedure.

3. Eight cases (10 per cent) became pregnant after operation (three never having had previous pregnancies). One woman aborted at five months, one died from intestinal obstruction at the seventh month, (eighteen months after the operation). The other six women went to term.

4. The maintenance of menstruation undoubtedly has a marked psychic influence on many women, particularly those of neurotic tendencies. This is well shown by the mental upset which not infrequently follows the cessation of that function after hysterectomy, even though the ovaries are allowed to remain and continue their trophic and metabolic influence. It is with this type of patient that the nicest judgment is required to determine whether or not the best interests of the woman will be met by a preservation of the pelvic organs. One woman in our list who seemed to possess a stable nervous system became so mentally and emotionally unbalanced following a hysterectomy that institutional care was required—undoubtedly in this instance the benefit following the removal of hopelessly damaged structures was more than offset by the psychosis which appeared after operation.

Our study suggests the following:

1. Chronic pelvic inflammation is a self limiting condition. A small, though definite, percentage of women having this pathology will be relieved of symptoms spontaneously. The healing process, if left to Nature, however, is frequently slow and uncertain.

2. Seventy-five per cent of women with a moderate degree of pelvic inflammatory disease were completely relieved of symptoms by conservative operative therapeutics.

3. The patients' desire for children may be a determining factor in the choice of conservation in the presence of border line inflammatory conditions.

4. The maintenance of the physiological function of the pelvic structures deserves consideration, particularly in highly strung neurotic types of women.

We shall now discuss the second subject of controversy, i. e., conservation or removal of ovaries with hysterectomy.

Despite the fact that this subject has been of such vital interest for the past decade or more, and considerable literature has accumulated as to the value of one or the other procedure, the evidence and conclusions of the vari-

ous investigators have been conflicting. The problem has not yet been solved and will not be until much more clinical and experimental data has been accumulated. This communication will present our impartial analysis of 326 cases of hysterectomy; 218 cases in which tubes and ovaries were removed and 108 cases with retention of one or both adnexa.

The material has been studied according to

1. Indications for operative therapeutics.
2. Relief of pre-operative symptoms.
3. Occurrence of menopausal symptoms.
4. Result of therapy.
5. Mortality.

1. Myomata were found in 34 women, pelvic inflammatory in 125, fibroids with pelvic inflammatory disease in 22. There were seven ectopic pregnancies in the series; 14 carcinoma; 1 sarcoma of the ovary; 80 metritis, and 43 women at or beyond the menopause with uterine prolapse. Abdominal panhysterectomy was performed 132 times; vaginal panhysterectomy 42 times; in 152 cases the cervical stump was allowed to remain. Contrary to the general impression, the frequency of post-operative morbidity and mortality was not higher in the pan than in the supracervical hysterectomies and the support of the vaginal vault was equally satisfactory in both types of operation; the former, however, possesses a decided advantage in that removal of a diseased cervix precludes the possibility of later malignancy and almost invariably relieves the chronic leucorrheal discharge. The convalescence in the series of vaginal hysterectomies was invariably smoother than in the abdominal cases, the advantage of the vaginal route more than offsetting the handicap of age of this group of patients.

In considering the relief of symptoms afforded by operation, the immediate postoperative data was not taken as conclusive; only cases which had been observed for at least six months are included in this report. Of the 326 hysterectomies whose records are well controlled for a period of one-half year to four years, 220 (68 per cent.) were completely relieved of all pre-operative complaints; 32 per cent. were partially relieved. There were no women who were not helped or who were made worse by surgery.

This apparently low percentage of absolute cures requires some explanation. Were we to accept as final the patient's statement of her general condition, more than 90 per cent. would be classed as completely cured. These conclusions, however, were not drawn from this source. We have obtained them by actually balancing the pre-operative and post-operative complaints. The latter were obtained by detailed inquiry and were usually minimized by the patient because of her greatly improved general condition.

Bladder disturbances, abdominal and pelvic pain, backache, headache and leucorrhea constituted the pre-operative symptoms.

Bladder symptoms. 49 per cent. had pre-operative vesical symptoms (frequency, incontinence, painful urination). 13 per cent. had

postoperative symptoms referred to the bladder. Since a definite cystocele was present in a large majority of these women, the 36 per cent. cure of vesical symptoms must be attributed largely to the support of the bladder wall following plastic work on the pelvic floor although the removal of the pressure of tumors on the bladder and inflammatory infiltrations in adjoining structures enter into the combination. It is possible that frequent urination (the common post operative complaint) results from the disturbed balance between the endocrine and autonomic systems as a result of the removal of an ovary or disturbance of its blood or nerve supply. Vasomotor, cardiac, digestive and urinary symptoms are clinical manifestations of this altered balance following oophorectomy.

The frequency of abdominal and pelvic pain was reduced from 81 per cent. before operation to 4 per cent. subsequently. Our statistics do not show that retained ovaries in any way modified the frequency of abdominal or pelvic pain. A few women presented with enlarged ovaries shortly after operation (possibly from disturbance in circulation as a sequence of operation). The enlargement did not give rise to symptoms which persisted.

The frequency of headache was reduced from 33 per cent. preoperatively to 11 per cent. post-operatively. Leucorrhea was reduced from 53 per cent. to 11 per cent. Panhysterectomy cured 25 per cent. more women of this symptom than did the supravaginal removal. Occasionally, however, a slight discharge persisted after the removal of the cervix, the result of exuberant granulations in the vaginal vault. This was easily checked by cauterization. Backache may result from many extra pelvic lesions, yet it is of interest that this complaint was reduced from 18 per cent. to 9 per cent. by correcting existing pelvic pathology. Properly fitting shoes, well designed corsets and other orthopedic devices reduced the percentage further.

Before considering the phenomena so intimately and vitally connected with the endocrine system, it may be well to review briefly our present conception of the normal physiology of the ovary. While it is admitted that our knowledge is far from complete, we do know that the ovary is a gland which is concerned primarily with (1) the process of reproduction and (2) the elaboration of an internal secretion. Histologically the organ is composed of connective tissue stroma, nerves, blood and lymph vessels and epithelial elements. We are particularly concerned with the latter. The epithelial structures consist of (1) Graafian follicles and their contained ova, (2) originating from these the corpora lutea, (3) the atresic follicles, (4) possibly interstitial glands. Functionally the Graafian follicle and ovum controls the phenomena of reproduction of the species. The corpus luteum develops from the collapsed follicle and constantly undergoes progressive and finally regressive changes. It initiates and co-ordinates cyclic changes which occur in the endometrium and which bear upon the process of menstruation.



The function of the atresic follicles is not known—an important consideration for conservation of the ovary. In addition to the process of reproduction, the ovary also exercises trophic influences on the generative tract, controls the development of the mammary gland and is intimately connected with the other units of the endocrine system, particularly the thyroid, pituitary and adrenal. There is more than a suggestion that the ovary plays an important part in metabolism (Phosphorus output). The connection which exists between the nervous system and the ovary is so well established that discussion is unnecessary.

Symptoms of the surgical menopause occurred in 57.6 per cent. of our entire series; these symptoms whether occurring naturally or artificially are manifested by disturbances of the autonomic and psychoneurotic systems. Flushes and nervousness and palpitation are the common complaints.

85 per cent. of the 218 cases having a double salpingo-oophorectomy had flushes and nervous symptoms. In 17 per cent. the disturbances were very severe.

Only 20 per cent. of the 108 cases in which one or both ovaries remained had menopausal symptoms—3 per cent. (4 cases) had marked disturbances. In other words, four out of every five cases were saved from ablation symptoms by permitting ovarian tissue to remain. Attempting to more closely analyze our material, we tried to ascertain whether or not the severity of the artificial menopause symptoms is influenced by (1) the age of the patient, (2) pre-operative health (blood pressure, hemoglobin), (3) operative indication.

The ages of the women ranged from 18 years to 74. Within these limits there were

Under 20—2  
20-29—49  
30-39—118  
40-49—114  
50-59—32  
60-69—10  
74—1.

We have fifty-one women under thirty years. A double salpingo-oophorectomy was done in 41 cases—97 per cent. had flushes—47 per cent. of these were severe. One or both adnexa were saved in only ten cases. Five of these women (50 per cent.) had flushes. In one case they were severe. Between the ages of 30-40 there were 118 cases. Sixty-nine complete removals were followed by disturbances in 92 per cent—one-third of them severe. Forty-nine cases of conservation—19 per cent.—had flushes (2 per cent severe). Between 40 and 50 years, there were 114 cases. 81 per cent., or 81 cases, had flushes (39 per cent. severe). In 33 women with ovarian tissues, 25 per cent. had flushes (3 per cent. severe). Between 50 and 60 years, 32 cases—69 per cent.—of the 22 women without ovarian tissue had menopausal symptoms, 13 per cent. of which were severe. Ten per cent. of the women of this group having one or both ovaries had disturbances but none were marked.

The 11 cases over 60 had no disturbances following removal of ovaries.

A summary of these results shows that up to the age of 60 years, the loss of the ovarian tissue was followed by disturbances in over 80 per cent. of women, the younger the patient, the greater the frequency and the more severe were these disturbances. While 21 per cent. of cases in which the gland was retained had symptoms, yet the frequency of severe reactions was always markedly lessened. The question frequently arises as to whether or not the ovaries should be removed in women at or beyond the menopause. The exact term of ovarian activity is not known and our results would indicate that retention of the gland materially reduces the frequency of disturbed functions (146 between age of 40-60—75 per cent. of women had symptoms with ovarian tissue). There have been no secondary operations on any of the hysterectomies with retained tissue. The importance of maintaining an adequate circulation should be mentioned in this connection. It has been shown very clearly that the arterial supply to the ovary through the ascending uterine artery and the venous drainage through the uterine veins is unavoidably cut off in doing a hysterectomy. Salpingectomy further endangers the circulation, therefore the tube should be retained whenever possible. Unnecessary interference with the blood supply can be avoided by supporting the ovary and preventing torsion of the infundibulo-pelvic ligament.

Polak states that the symptoms of the operative menopause are less after extirpation for pelvic inflammatory disease than when the ablation is done for fibromyomata. This he attributed to associated blood vessel changes in the latter. Reviewing our cases from this standpoint, we cannot confirm his opinion.

Sixty per cent. of our 122 inflammatory cases presented vasomotor disturbances, 30 per cent. of these were severe. The same phenomena were noted in 59 per cent of the 34 uncomplicated fibroids. They were marked in 35 per cent.

Polak also states that the nervous symptoms are more marked when the woman comes to the operation in comparatively good health and with a high blood pressure and haemoglobin. Our results do not support this claim. Our severe reactions occurred in a series of women whose average haemoglobin was 70 per cent. and whose average systolic blood pressure was 130 before operation, only three of these cases had systolic readings of 150 or more.

The clinical results of the various forms of ovarian therapy are by no means uniform. We have attempted to abort or reduce the marked nervous phenomena by administering the gland at frequent intervals beginning within a week after operation. In general the flushes have been controlled. No symptoms were augmented by the therapy. In three women corpus luteum extract produced such marked nausea that the medication had to be discontinued. For the last two years, we have used Burroughs Wellcome tabloid Varium which recommends itself because of its therapeutic value and inexpensiveness. As yet

we have had no opportunity to use ovarian residue which has recently been advocated by Graves.

A study of the metabolism and the trophic changes following ovarian medication possibly would determine more accurately the value of the treatment, yet this has not been possible. We have limited our observations to the apparent improvement in nervous and vasomotor phenomena following the medication.

#### MORTALITY

The mortality for the series of 436 cases was 1.6 per cent. This is not a high death rate when we consider that the series included 14 carcinoma cases, ten of which were cervical growths and were removed by the Wertheim procedure without any deaths. Death resulted from emboli three times; paralytic ileus once; hemorrhage from the vaginal vault sixteen days after operation once; one post operative pneumonia; the seventh woman with recurrent ovarian carcinoma died from shock.

As a result of our study, we present the following conclusions:

1. A hysterectomy should not be followed by removal of normal tubes and ovaries.

2. Absolute cures of all pre-operative complaints were obtained in 68 per cent. of 326 cases; 64 per cent. of 218 hysterectomies with removal of both adnexa; 72 per cent. of 108 cases with retained adnexa.

3. A most rigid standard for judging cures has given us low percentages of cures. Ninety per cent. of the patients were completely satisfied with the results of their treatment.

4. Ablation symptoms occurred in patients up to the age of 60. The frequency and severity varied directly with the age of the patient.

5. Ablation symptoms were present in 80 per cent. of the total extirpations and in 25 per cent. of cases in which the adnexa remained. Severe symptoms were less frequent in the latter than in the former group.

## Book Reviews

**Fundamentals of Human Anatomy.** By Marsh Pitzman. 356 pp. Illustrated. St. Louis: C. V. Mosby Company. 1920. Price, \$4.00.

The author says in his preface, "My confidence in the aims of this book is greater than my faith in the performance!" The work justifies his distrust. It is not complete enough to be of use as a book of reference, nor sufficiently well ordered for a text-book. The illustrations are meager and insufficient. There are already so many good anatomies that a new book, to make room for itself, will have to be very good indeed. L. E.

**Laboratory Manual of Physiological Chemistry.** By Elbert W. Rockwood. 4th ed. 316 pp. Illustrated. Philadelphia: F. A. Davis Company. 1919.

This little book contains a great deal of valuable material in a very small space. In fact, the smallness of the space is about the only objection to it that the reviewer can see. As the book is intended to be a laboratory manual it naturally leaves certain things to be explained and elaborated upon by the teacher. It gives a number of the new methods of blood analyses and it has a very helpful section on the ionic theory in gastric analysis and in other cases where indicators must be used. Many men to-day are wondering what this "P H" which they

see everywhere means. They wonder what is the difference between true acidity and the titratable acidity. They try to understand the modern tests for acidosis without any conception of ionization and the negative logarithm. The discussion on page 102, et seq., is one of the best which the reviewer has seen for explaining these new things.

W. C. A.

**Hygiene and Sanitation.** By Seneca Egbert. 7th ed. 554 pp. Illustrated. Philadelphia and New York: Lea & Febiger. 1919. Price, \$3.00.

While considerable new material has been added to this seventh edition, much that is vital and important has been eliminated in the revision. We agree with James A. Tobey, who reviewed this book in the *Journal of Public Health* and says, "that house plumbing and disinfection are given more space than they are worth, and that there is no description of purification of water by liquid chlorine, nor of standard methods of analysis. The illustrations are occasionally antiquated and the references are not up to date. In the chapter on Industrial Hygiene, Price and Thompson are ignored." As a manual of general fundamental principles this book has a value, but for persons who desire information of an advanced character there are other works much better suited for that purpose. W. C. H.

**Pasteur—The History of a Mind.** By Emile Duclaux, late Member of the Institute of France, Professor at the Sorbonne and Director of the Pasteur Institute. Translated and edited by Erwin F. Smith and Florence Hedges, Pathologists of the U. S. Department of Agriculture. Octavo of 363 pages. Illustrated. Philadelphia and London: W. B. Saunders Company, 1920. Cloth \$5.00 net.

It must be distinctly understood that this work is not a life of Pasteur. It is an attempt, first, to outline the state of knowledge of the various subjects upon which Pasteur worked at the time he first attacked the problems and, second, an attempt to follow his process of reasoning as each subject developed under his experimental guidance.

In some instances this is done rather clearly, but in others it is a bit difficult to follow the thread. The one adverse criticism is this "jumpy" character due, probably, to two factors,—the inherent difficulties of following a mind's reasoning, and the fact that two people translated the work.

It is a book that is well worth reading by any one interested in the history of science and it puts one in personal touch with the state of mind of Pasteur and his contemporaries.

The "annotated list of persons mentioned in this book," which contains the essential points in the lives of more than 200 persons mentioned in the book, is a great aid in a clear understanding of the people of the time.

This book is not only worth reading, it is worth owning. A. L. F.

**Personal Beauty and Racial Betterment.** By Knight Dunlap. 95 pp. St. Louis: C. V. Mosby Company. 1920. Price \$1.00.

The significance and the conservation of human beauty is dealt with in this book from the viewpoint of fitness for parenthood, ability to propagate children of a higher mental and physical structure, and to create a race which shall better be able to resist the forces of nature and society. It is undoubtedly an interesting book and a valuable addition to the literature of social psychology were it not for the needless anti-German utterances which belong to past history and which never should have found place in scientific literature, least so in publications dealing, as this book does, with racial betterment. Hatred has never improved the looks of a person and has never beautified the soul. A. G.



**The Duodenal Tube and Its Possibilities.** By Max Einhorn, M. D., Professor of Medicine at the New York Post-graduate Medical School; visiting physician to the Lenox Hill Hospital, New York City. Octavo of 122 pages with 51 illustrations. Philadelphia and London: W. B. Saunders Company, 1920. Cloth, \$2.50 net.

This book gives in detail all of the work done by the author on the possibilities of diagnosis by direct examination of the duodenal contents, coupled with the possibilities of treatment, such as duodenal alimentation, duodenal instillation of fluids and gases, duodenal lavage, and instillation of remedies.

Other instruments for the pylorus, duodenum and small intestine are described, as well as their practical uses from the standpoint of diagnosis and treatment.

The book represents the results of about sixteen years of painstaking work and careful observation.

Among the possibilities of treatment by means of the transduodenal flushings with hypertonic solutions, the author does not mention the wonderful results that can be obtained in post-operative hiccough, especially with gallbladder patients.

Particularly will surgeons, internists and gastroenterologists find themselves well repaid for the time used in reviewing this book. F. R. M.

**Historical Sources of Defoe's Journal of the Plague Year.** By Watson Nicholson. 182 pages. Illustrated. Stratford Co., Boston. 1919.

Nicholson goes to much trouble to prove that Defoe's Journal is not fiction but fact. His hundred pages of argument seem unproportionately heavy artillery to bring up in the question as to whether Defoe's pictures of the plague in the paintings of an artist or the fac-similes of a photographer. It doesn't really matter. Paintings are probably as true as photographs. The Journal is based on fact, of course. Whether Defoe has interwoven a little more or less of art, makes his pages none the less real. The appendix to Nicholson's book contains excerpts from Defoe's historical sources, pages from medical authors of the time of the plague. These are of much interest, both for their subject matter and their incomparable English. L. E.

**The Surgical Clinics of Chicago.** Volume IV, Number 3 (June, 1920). Octavo of 204 pages, 79 illustrations. Philadelphia and London: W. B. Saunders Company. 1920. Published bi-monthly. Price per year: Paper, \$12.00; Cloth, \$16.00 net.

**A. B. Kanavel:** Empyema. **H. L. Kretschmer:** Cystic dilatation of intravesical portion of ureter due to presence of calculus. Metastatic prostatic abscess. **D. C. Straus:** Perforated gastric ulcer. **A. D. Bevan:** Repair of common bile-duct. Paraffinoma of nose and eyelid. **A. A. Strauss:** Intussusception. **E. L. Cornell:** Occipitoposterior position at term. Occipitoposterior position complicated by lobal pneumonia and fractured rib. **D. N. Eisendrath:** Tuberculosis of a hernial sac with brief consideration of abdominal tb. in general. **G. E. Shambaugh:** Malignant tumor at upper end of esophagus. Encephalitis with paralysis of soft palate and esophagus. Nasal obstruction simulating persisting head colds. Asthma cured by operation in nose. Persistent mastoid fistula after simple mastoid exenteration. Acute otitis media in an infant with acute swelling back of ear. **Gatewood:** Tuberculous glands of neck. **R. L. Moody:** Antiquity of Pott's disease and other spinal lesions; primitive treatment. **G. L. McWhorter:** Chondroma of thumb. **E. L. Moorhead:** Acute appendicitis and gall-stones. Acute lymphangitis. **F. H. Falls:** Ruptured interstitial ectopic pregnancy.

## Correspondence

### Bar Association Says Vote Yes on No. 3.

San Francisco, Sept. 18, 1920.

To the Editor:

As Vice-President of the California State Bar Association I have the honor to direct your attention to the following resolution unanimously adopted at the annual meeting of the said Association, held at Santa Cruz, September 25th last:

"Resolved, That the California Bar Association hereby endorse the initiative amendment for the increase of the salaries of the Justices of the Supreme Court and District Courts of Appeal and suggests to its membership that they advocate to the people the adoption of the amendment by the people at the November election, to the end that the independence and efficiency of the appellate judiciary of this State be maintained upon the high plane that has always distinguished it, and that the salaries of the Justices be fixed in an amount in a measure commensurate with value of the services rendered."

The passage of this constitutional amendment is necessary in order to give the Judges of the Appellate and Supreme Courts of this state a modest increase in their salaries to enable them to meet the present living conditions.

Every citizen, I know, has an interest in maintaining the high standards in our judiciary and obviously this can only be accomplished if the people make fair and adequate provision for the Judges.

In the absence of President Wyckoff, and on behalf of the legal profession of this state, I beg to request that you give the above resolution and this statement publicity in the columns of your Journal so that the members of our brother profession may be advised upon this important issue.

Vote YES on Number 3 on the ballot.

Very respectfully yours,

WM. B. BOSLEY,

Vice-President, California State Bar Association.

(COMMENT—This letter and its advice are heartily commended to the favorable attention of the medical profession of California.)

## Clinical Department

### PROBABLE SMALLPOX—REPORT OF CASE.

Wm. B. Smith, M. D., Kernville, Calif.

R. G. E.—Age 35, married, with two healthy children, a hydro-electric power plant operator who had not been out of this immediate mountain district for nearly six months. No similar case has appeared here to my knowledge either before or since this man's sickness and death. This man had been troubled with a "pimple" skin especially of the face and neck, and here in the mountains has been subject to spring outbreaks of "poison oak" which have been very intractable, leaving a sort of eczematous condition of face and neck for weeks at a time. Otherwise his personal and family history is negative.

June 8th the man complained of diarrhea without any cramps.

June 9th he quit work complaining of diarrhea, extreme backache, and some nausea.

June 11th the diarrhea was profuse and a punctiform eruption appeared on the face, neck, scalp, and exposed parts of the chest, with a fever which his wife thinks was high. No chill and no headache. His wife thought he was having an outbreak of hives with his stomach trouble. I saw him on the 12th of June.

June 12th—twenty-four hours after the puncti-

form eruption the man exhibited a complete pustular eruption of face, scalp, neck, upper chest, extensor surfaces of both arms, and dorsum of both hands. On the exposed surfaces the eruption was so thick that much of it was coalescent, but the individual pustules were about the size of a BB shot, typically umbilicated, and the man complained of a terrible backache, with a temperature of 103. The appearance was so striking and suggestive that I isolated the whole family, reported the case to the County Health Officer, who ordered me to treat the case as one of variola.

June 13th with a fever of 103 to 104 the patient became delirious and continued so until death on June 21st.

June 17th the pustules had begun to dry up, and where the surfaces had been kept under a moist chlorazene dressing the ulcers were rather sharp edged and through the complete layers of skin, and would evidently have resulted in typical pits and scars had the man recovered. The patient had become a most repulsive looking object with a very disagreeable odor.

June 21st in the morning, the temperature was normal and the patient was apparently semi-conscious, but during the day the pulse gradually faded out and death occurred at 2:30 p. m.

There were no findings nor history in this case which pointed to syphilis. A gastro-intestinal poisoning might have given a pustular eruption, but hardly with the symptom complex above, nor in my experience, with such profound mental disturbance. Multiform erythema lies open to the same objections. My bulletin on smallpox from the State Board of Health puts great emphasis on the time element in the development of a variola eruption. This case exhibited complete pustulation without any intermediate vesicular stage, 24 hours after the first rash. No other case has appeared here. If the diagnosis of smallpox in this case is erroneous, will some one please suggest a better one?

#### Comment.

There is no question but that this was a case of confluent smallpox, probably contracted from some person who had what had been called "chicken-pox." Dr. A. A. O'Neill (whose article elsewhere in this issue, should be read) states as follows:

"Some years ago I was requested by the State Board of Health to see some cases which were reported to the office as Manila itch, and upon going to the town designated, the doctor who had reported the cases and who met me at the train, had a marked case of discrete variola—his family too I found to be suffering from the disease. The error in this case was due to the fact that the doctor thought he was suffering from la grippe, and that the rash followed the rather free use of cold tar anti-pyretics. The other cases were, as I said, thought to be some form of itch. Another thing that tended to lead him astray was the fact that there was nothing of the kind in the place, nor had there been for many years."

#### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 10, February 11, 1920. Female, Chinese. Age 5 weeks. No. 27111. K. L.

**Complaint:** Convulsions, fever, constipation.

**Family History:** Father and mother living and well. One brother aged 9 and one brother aged 4 years, living and well. No dead children. One spontaneous miscarriage at 4 months, before birth of last child. No history of tuberculosis or of exposure to it. No history of other illnesses in members of family or in the neighborhood.

**Past History:** Full term, normal delivery, birth weight 6 pounds. Breast fed entirely. Had occa-

sional distress from gas but regurgitated rarely and no history of projectile vomiting.

**Present Illness:** The child has apparently been in perfect health, gaining steadily until 4 days before entry, at which time she became constipated with the failure of oleum ricini on two occasions to cause an evacuation. Fever developed 2 days before entry, and together with constipation has persisted since. At irregular intervals during the last 96 hours there have been four convulsions, generalized and tonic in character, not Jacksonian according to the history.

**Physical Examination:** Well developed and nourished Chinese baby, lying in bed in a tonic convulsion. There are no petechiae or hemorrhages and no cyanosis. There is a slight tache cerebrale. External and middle ears negative. Eyes—palpebral apertures equal, conjugate deviation to the left, pupils equal, not excentric, no reaction to light. Fundi could not be seen. Anterior fontanelle tense but not bulging. Nose, full of frothy mucus. Mouth, chewing and sucking movements constant. Neck, head rotated to left, no retraction and not especially rigid. Lungs, negative to inspection, palpation, auscultation and percussion. Heart, negative. Abdomen, normal contour, not distended, negative to palpation. Genitalia, normal. Extremities, rigidity marked, reflexes exaggerated, no Trousseau. Kernig positive, bilateral.

#### Laboratory Examinations.

Urine cultures: Father, mother and brother, negative for B. Typhosus.

Throat cultures: Father, mother and brother, negative for B. Typhosus.

Stool cultures: Father and brother, negative for B. Typhosus.

Throat cultures: Patient and brother, streptococcus hemolyticus only.

Spinal fluid: 15 cc. withdrawn, thick, turbid, not increased in pressure. 10 cc. antineurococcus serum injected. Culture positive for B. Typhosus.

**Treatment:** 10 cc. antineurococcus serum injected intraspinaly.

10 cc. antineurococcus serum injected intravenously.

Glucose 4%, 250 cc. injected intraperitoneally.

Gavage feeding of breast milk.

Death occurred 10 hours after entry.

#### Autopsy Findings and Diagnosis.

Acute fibrino-purulent cerebro-spinal meningitis (B. Typhosus).

Slight acute splenic tumor.

Slight parenchymatous degeneration of kidneys.

Glucose solution in abdomen.

Petechial hemorrhages in pleurae.

#### Photograph of Pathological Specimen.

Shows extreme degree of exudate on vertex and basal surface of brain.

**Discussion:** Typhoid meningitis is a distinctly rare disease, especially in the primary form. In the foreign literature 40 cases had been reported to March 1919. The latest summary in America gives a total of 37 cases, absolutely proven, and ruling out localized lesions of the brain or cord due to the bacillus typhosus and following, for instance, trauma. The present case report adds another to the series, and is the youngest on record. In those noted above the youngest case due to the bacillus typhosus was 4 months (one case is reported incidentally, aged 7 weeks, due to the bacillus paratyphosus). Six cases in all have been reported as "primary," i.e., not occurring in the course of a typhoid intestinal infection and with absence of intestinal lesions at autopsy.

While not bearing on this case it is of interest to note the three types of meningeal affection noted in a complication of typhoid fever, namely meningismus, characterized by a negative (essentially) spinal fluid without organisms; serious meningitis, characterized by negative or slightly modified spinal fluid but containing B. Typhosus; and purulent



meningitis, with the well-known characteristics of the spinal fluid and B. Typhosus in large numbers. 0.2% of typhoid cases show meningitis while 1.75% of all cases of meningitis are due to the bacillus typhosus according to some statistics, which seem, however, to be entirely too high.

The cases have been uniformly fatal in the purulent form in spite of any treatment instituted.

The course of the case reported was very rapid, but when observation is made of the pathological findings this is not surprising.

The portal of entry has been assumed in the

members of the family. The mode and origin of the infection are, therefore, extremely obscure, as was true in the primary cases above noted, no tracing of the source of infection being possible.

Diagnosis of the condition is the diagnosis of meningitis. No differential diagnosis is possible except bacteriologically. The spinal fluid of course contains bacilli in smear and culture and is usually stained yellow. There is a marked cellular increase and except when a complication is present, e. g., in the presence of a broncho-pneumonia which gives a polymorphonuclear majority, the mononuclears predominate. Without coagulation the white blood cells are not particularly increased and there may be a true typhoid leucopenia.

## State Society

The members of the Medical Society of the State of California have been receiving the official publication of the Society during the past four years and have had no increase in State Society dues, each County Society having paid the State organization \$7 yearly for each member. This money serves to keep up the State organization, pays for the publication of the best medical journal in America, for the legal protection of each member, and gives them the full benefit of the co-operation and intellectual contact of his confreres which is so essential to scientific advancement in medicine.

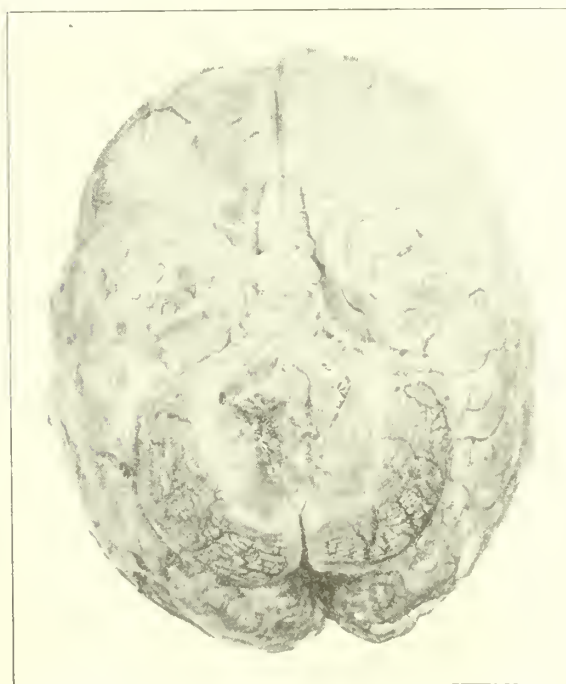
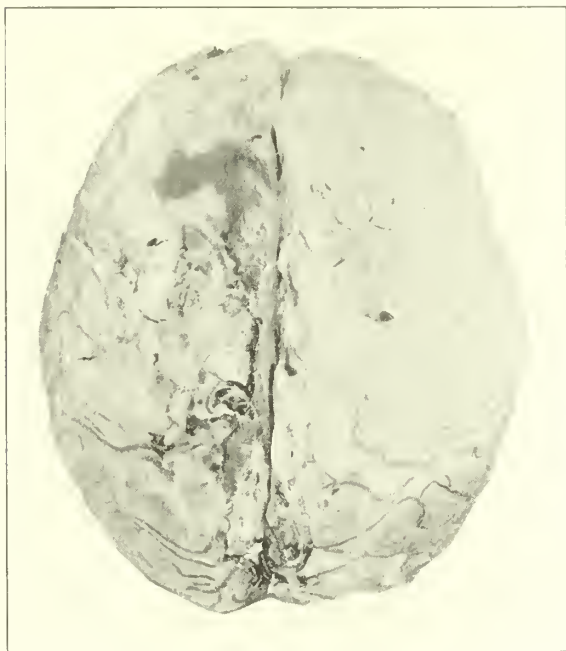
Since the war, wages have increased practically 100 per cent., the cost of printing our Journal has been doubled, and paper stock has gone up 500 per cent. Our average monthly increase for 1918 was \$73; for 1919, \$75 more, and thus far in 1920, \$171.93, or a total average increase per month for the last three years of \$320. All of this has been absorbed and taken care of by the State Medical Society without the increase of one cent in dues. In fact, by careful foresight in the advance purchase of paper we have been able to save to the Society \$2500. But this cannot be done in future.

Our advertisers have been raised a small amount, but in no instance has this raise been commensurate with the increased cost of production. As in all other business where the ascending scale of prices has disturbed the economic equilibrium, the ultimate cost must be paid by the consumer.

The *California State Journal of Medicine* can no longer be run on the financial basis of the past. With the unprecedented demands of labor and the disastrous effects of speculation and profiteering, we are compelled to follow the example of all business and demand an increase in price. This will mean an increase in our advertising rates, and an increase in the dues to the State Medical Society.

Our organization is getting larger all the time, and our office force must be increased to handle the routine work of the Society. This means more floor space and more assistants.

Considering the great advantage the State Medical Society is to medicine, the high quality of scientific papers delivered to our members in our Journal, and the invaluable legal protection



primary cases to be the naso-pharyngeal passages and not the intestinal. Bacteriologic data were entirely negative in this case as to exposure through

which the Society offers, an annual assessment of \$10 per member would not be at all exorbitant. Such a raise, of course, cannot be made without the recommendation of the Council and the vote of the House of Delegates.

For the time being we will continue as we are, but we must be prepared for coming events.

## County Societies

### FRESNO COUNTY.

Tuesday, September 7, the Fresno County Medical Society met in regular session after a vacation of two months during the summer.

The regular order of business was dispensed with inasmuch as the paper of the evening was non-medical.

Dr. Robert W. Binkley of Selma was elected to membership in the society.

Chester H. Rowell spoke for a few minutes upon the quack quartet and pointed out some of the hidden viciousness in each measure. For example, he said the vaccination measure would not only forbid vaccination as a pre-requisite for schools but would repeal all present vaccination laws.

In regard to anti-vivisection any experiment, whether physical or physiological, would be construed as vivisection. Under such a law we could not have the Wassermann reaction, inoculations, treatment for rabies or even tuberculin for cows.

Under the sales poison act the uneducated as well as the educated would be permitted to dispense morphine and cocaine.

The chiropractic bill would place power in the hands of the uneducated man and woman who could, and would, through lack of knowledge, potentially commit murders. It is the interest of the patient at stake and not the medical man's means of livelihood.

Several plans were proposed to get these measures before the public, and that suggested by Dr. McPheeters met with approval, which was to have a résumé of these bills printed and placed in the hands of all the patients of the doctors of Fresno county.

The society, on the motion of Dr. W. W. Cross, voted an additional \$200 to be sent to the League for the Conservation of Public Health.

This was followed by a report on the nurse and the twelve-hour law regarding nurses. Letters were read as to progress in other parts of the state.

Dr. J. R. Walker, Dr. Trowbridge and Dr. Aiken were placed upon the legislative committee.

The paper of the evening was presented by Dr. R. G. Aitkin of the University of California, his subject being "News From the Stars."

Dr. Aitkin illustrated his lecture by many recent photographs, giving the layman much of the detail of instruments used as well as procedure for the study of the stars.

The formation of stars was gone into and many interesting photographs taken over a period of years were introduced to substantiate the belief as to their formation.

Perhaps the most interesting picture presented was that of a gas formation of great magnitude, many times more rare than the earth's atmosphere, yet attaining a heat that is almost impossible of comprehension.

Some of the hardships of the profession were gone into and the physical conditions to be overcome were presented.

The subject was handled by a master, and when it came to a discussion of the paper Mr. Rowell acted for the society and presented some of the philosophical aspects of the subject, the purport of which was to show man his insignificance.

The society was congratulated by Mr. Rowell for taking an interest in things other than pure medicine.

## LOS ANGELES COUNTY Special Meeting

Los Angeles County Medical Association met August 19, 8 p. m. in the Friday Morning Club Rooms.

The Vice-President, Dr. John V. Barrow, in absence of Dr. Rea Smith, the president, called the meeting to order and introduced Dr. James C. Ross of Chicago, Ill.

Dr. Ross is connected with the Abbott Laboratory of Chicago. He began by saying that he endeavored to disseminate useful information by moving pictures, accompanied by words of explanation.

The surgeon general had appointed Col. Ed Martin to report on "The Technique in the Application of Dichloramine-T in Industrial Surgery," and "Two War-time Methods of Treating Burns," photographed by Col. Martin and his associates; the next subject was "The Carell Method of Wound Sterilization" photographed by Dr. Geo. W. Hawley; concluding with "Parturition, Normal and Abnormal," photographed by Dr. Jas. W. Markoe.

Dr. Wm. Duffield announced that there would soon be a picnic held by this society somewhere near by the boundary of Riverside and San Bernardino counties, so that the medical societies of those counties could also attend.

### Southwestern Pediatric Society

There was recently organized in Los Angeles the "Southwestern Pediatric Society" consisting of the physicians in this section of the country who limit their work to pediatrics.

This society meets on the first Monday of January, March, May, September and November.

The officers elected are: Dr. Henry Dietrich, president; Dr. C. Edgerton Carter, vice-president; Dr. Oscar Reiss, secretary-treasurer.

### Innominate Society

Regular Meeting August 11.

#### Program

"Pulmonary Hemorrhage".....  
.....Walter Holleran, M. D.  
"Anesthesia in Rectal Surgery".....  
.....Phil Cunnane, M. D.  
"Direct Examination of Esophagus and Larynx".....  
.....Case Report, Chester Bowers, M. D.

### Southern California Society of Anesthetists

Regular Meeting, Sept. 7, 1920.

#### Program

"Nitrous Oxide Anesthesia in Dental Surgery"....  
.....J. E. Wilson, M. D.  
Case Report.....H. T. Cooke, M. D.

### Narcotic Clinic

In answer to the City Council's request for a statement of the cases treated and results achieved by the narcotic clinic at the Temple Block, Dr. Elmer R. Pascoe, acting health commissioner, reported August 4 that 548 cases registered up to August 1. Two hundred ninety-nine were active cases and 249 have been closed. Eighteen cases were sent to the psychopathic ward of the County Hospital.

### U. S. Will Close Narcotic Clinics Aug. 27.

John F. Kramer, Federal Prohibition Commissioner of internal revenue at Washington, ordered that the municipal clinics of Los Angeles and of San Diego be closed.

John L. Considine, Supervising Federal Prohibition Agent for the Pacific Coast, arrived in Los Angeles August 12 with Harry D. Smith, his narcotic chief. The latter informed Dr. L. M. Powers, Health Commissioner of Los Angeles and ex-officio head of the city's narcotic clinic, Dr. Powers communicated with Dr. W. H. Bucher, who became head on the resignation of Dr. John W. Nevins,



and a sign was posted to that effect. The ambulatory treatment of drug addiction was denounced.

The decision to close the clinics is based on two premises:

"1. The operation of municipal, ambulatory narcotic clinics is in violation of the Harrison anti-narcotics law, as amended and interpreted by the U. S. Supreme Court.

"2. That even were the operation of these clinics legal, they are morally wrong, inadequate, ineffective, and the clinics themselves not only here but elsewhere, are failures."

#### **The Quarterly Bulletin of the Los Angeles Health Department for April, May and June, 1920.**

The Quarterly Bulletin of the Los Angeles Health Department for April, May and June, 1920, has just appeared.

Dr. L. M. Powers, the Health Commissioner, under whose direction it is published, should be congratulated on his splendid work. The pamphlet is full of instructive and interesting matter. It is to be hoped that every practitioner may have received a copy and taken the time to read it.

Just before election every citizen ought to know that of 256 cases of smallpox reported to the office for the year ending July 30, 1920, 205 were never vaccinated, 25 were vaccinated after exposure which, even then, modified the disease—12 were unsuccessfully vaccinated which led them to think they were immune when virus or the technique was probably at fault. Fourteen were vaccinated during childhood and thus lost immunity.

An article on the plague and its prevention, another on the new treatment for leprosy, many statistics and reports on subjects of sanitation make up the six pages of the bulletin.

#### **Personals.**

##### **American Public Health Association Convention.**

Dr. Wm. Duffield, Dr. A. S. Lobingier, Dr. Neal N. Wood and Norman Martin were appointed a committee to arrange entertainment for those delegates to the convention September 13 to 17 in San Francisco who care to visit Los Angeles after the meeting.

##### **Dr. Lillian Ray Weds.**

Dr. Lillian Ray married Edward A. Titcomb, architect, August 18. She will continue on the faculty of the University of California, Southern branch, but will discontinue her practice.

##### **Centenarian Doctor Marries.**

Dr. Andrew Malcolm Morrison, aged 100 years, wedded August 22, Dr. Mary Augusta Barney, 72 years old. Dr. J. M. Peebles, 99 years old, president of the Centenarian Club, performed the ceremony, leaving out the obedience clause.

Dr. Walter M. Dickie of Los Angeles was appointed secretary of the State Board of Health at its last Board meeting on August 7th to succeed Dr. Irving Bancroft.

Dr. Dickie is a graduate of the University of California, also the University of California Medical School, and was, prior to his appointment, Director of the Bureau of Social Hygiene of the State Board of Health. He is a member of the Los Angeles County Medical Association.

Amelia A. Meagher, R.N., of Los Angeles, formerly special nurse in the Hospital of the Good Samaritan, who has always taken a deep interest in civic affairs, as an officer of both the Normal Hill Parent-Teacher Association and the Normal Hill Civic Center, has just been appointed as field worker with the Bureau of Social Hygiene, State Board of Health, as successor to Mrs. Nina G. Carson.

Mrs. Meagher will have offices at 214 Union League building, and her work will be to co-operate with all agencies and private physicians in the care of all venereally infected patients requiring treatment. All indigent cases reported to her

will be assisted in obtaining treatment at the various city clinics.

Dr. A. L. Shelton, physician and missionary and former bandit-captive in Tibet, will go back to the Orient on duty, leaving his wife and two daughters in Pomona.

#### **Hospitals.**

##### **Goodyear Hospital.**

Dr. Wayland A. Morrison will be consulting surgeon for the Goodyear Tire & Rubber Company to assist Dr. Louis D. Cheney, the chief of the factory hospital staff.

The policy of the company is "Safety first" by protecting employes at the Ascot plant from accidents. The emergency hospital and hospital service is nearing completion.

Dr. Morrison is a graduate of Stanford University and of the Harvard Medical School. He was on the surgical staff of the Massachusetts General Hospital at Boston and joined the army medical corps at the beginning of the war, serving two and a half years.

Dr. Cheney is a graduate of Iowa, served with the Third, Ninety-second and Ninety-third divisions.

The hospital consists of fifteen bright ward rooms, operating and surgical rooms and X-ray equipments.

##### **Hollywood Hospital.**

Plans for the hospital have been finished by Hunt & Burns, architects. The cost will be \$500,000. The hospital will be built on a five-acre site at the foot of Caluenga Pass, Highland and Caluenga avenues.

There will be an administration building and two wings, comprising about 100 rooms, accommodating 115 patients.

A nurses' home for housing 35 nurses will be a separate structure, with power house and laundry. Tunnels will connect the home with the main building.

##### **Tuberculosis Camp.**

Five thousand dollars was appropriated by the Board of Supervisors August 13 for the tuberculosis camp conducted by the Los Angeles Tuberculosis Association in San Gabriel Canyon. The association has a ten-year lease from the U. S. Forest Service and the California Edison Company.

##### **Arrowhead Hospital.**

The 1,200 delegates of the second annual convention of the State American Legion voted unanimously to leave the trouble about the Convalescent Hospital to the new executive committee.

##### **Public School Dispensary.**

After August 30 the Public School Dispensary, 936 Yale street, will open for service, according to a statement of the executive board of the Los Angeles Federation, Tenth District, Congress of Mothers and Parent-Teachers Association.

Dr. Egerton Carter will be the director of the clinic. Three dollars will be charged to those who can afford to pay it, to defray cost of trained nurse, etc. Those unable to pay will receive the same attention.

#### **Deaths.**

Dr. Edwin Russell, Los Angeles, Cal., Boston University, School of Medicine, 1880; aged 63; died July 16.

Dr. J. Wright, Santa Monica, a month ago from Kingman, Kan.; 61 years old; bought a new house at 913 Sixth street, August 12; ended his life by taking carbolic acid. Dr. Wright is survived by a widow and a son. He was a member of the Hutchinson, Kan., Chapter of Elks.

Dr. Lee Mathew Ryan, of Banning, Riverside county, where, with his father, he was the owner of the Banning Sanitarium; came with his wife six weeks ago to Glendale to recover from an illness, but died at 120 Moran street, at the age of 36, from an attack of heart trouble. He was a graduate of Rush Medical College, Ill., 1907.

Dr. John Johnson Kyle, 2630 Severance street,





Aug. 9	People vs. Burnett—No. 27770.....	.....Los Angeles, L. A. Co.
" 13	" " Coleman—No. 27875.....	.....Los Angeles, L. A. Co.
" "	" Girard—No. 16159.....	.....Los Angeles, L. A. Co.
" 19	" " Peterson—No. 16244.....	.....Los Angeles, L. A. Co.
" 19	" " Silos—No. 16245.....	.....Los Angeles, L. A. Co.
" 20	" " Butler—No. 7177.....	San Bernardino, San B'do Co.
" 23	" " Sander—No. 7530.....	San Diego, San Diego Co.
" 23	" " Agan—No. 7531.....	San Diego, San Diego Co.
" 25	" " Carlander—No. 7539.....	San Diego, San Diego Co.
" 27	" " Courtney—No. 3274.....	Los Angeles, L. A. Co.

#### Preliminary Hearings—4

Aug. 4	People vs. Parrish—No. 74.....	.....Inglewood, L. A. Co.
" 5	" " Ellis—No. 3252.....	.....Long Beach, L. A. Co.
" "	" " Tracy—No. 6909.....	.....Pasadena, L. A. Co.
" 12	" " Iverson—No. 583.....	.....Pomona, L. A. Co.

#### Police Court Trials—4

Aug. 10	People vs. Burnett—No. 27770.....	.....Los Angeles, L. A. Co.
" 17	" " Girard—No. 16159.....	.....Los Angeles, L. A. Co.
" 19	" " Silos—No. 16245.....	.....Los Angeles, L. A. Co.
" 30	" " Messick—No. 49558.....	.....Van Nuys, L. A. Co.

#### Supreme Court Trials—2

Aug. 2	People vs. Leong—No. 1908.....	.....Bakersfield, Kern Co.
" 2	" " Jear—No. 1907.....	.....Bakersfield, Kern Co.

Respectfully submitted,  
(Signed) C. D. BALLARD,  
Associate Counsel.

## Collected Clippings on Medical Law Enforcement

### Chiropractor Treats Measles

Daisy Barlow, a chiropractor, engaged in treating human ills at Salinas, without obtaining a state license. She was arrested and the testimony at the trial developed the fact that among the patients treated by the "Thrusting" method was one of measles. She was defended by three attorneys and the papers of Salinas were filled with big, splashy chiropractic advertisements appealing to prejudice. The jury disagreed and so Daisy Barlow can continue defying the law with apparent impunity. How about the spread of measles? The State Board of Health might well be interested in this problem.

### Five Cases Won by Chiropractor

E. R. Nettle was arrested July 8th for the old offense of violating the Medical Practice Act. He has pleaded not guilty and the trial is set for Sept. 7th. The campaign manager of the Chiropractic Society states that five similar cases have been won by the defendant.

### Chan and Chan Plead Guilty

These are not Chinese twins, but Chinese herbalists of Los Angeles. One pleaded guilty on June 14th and was fined \$250, and the other on June 15th and was fined \$100 for violations of the Medical Practice Act. A few hundred dollars mean

only a few more herbs, and the weeds are full of them.

### Chiropractic Item in L. A. Times

"Dr. Eugene Brown, well known in labor circles and champion of the chiropractic bill, occupied the pulpit of the South Methodist Church in Los Angeles, speaking on 'Is California Anti-Christ?' A more appropriate subject for the speaker would be 'Is California Anti-Law?' when it tolerates unlicensed incompetents to trifle with the health of the people in open defiance of state laws."

### Tom Jim of San Diego

Tom Jim also believes that the Medical Practice Act has less force than the Eighteenth Amendment. He violates it with Oriental facility. He was recently arrested, pleaded guilty and fined \$100.00. He went forth with a Celestial smile at the guileless faith of those who believe that fines will stop lawbreakers.

### \$5.00 Bail in Orange County

Santa Ana is the town where some people go to get married. The officials are so accommodating. They wouldn't hurt anyone's feelings for the world. C. T. Cleland was arrested there the 28th of June for practicing without a license. A little thing like that didn't disturb the genial officer before whom he was arraigned. Cleland was an advertiser and looked like he liked the climate. That was sufficient. He was promptly released to enjoy it. The Court demanded five good dollars to insure the continued presence of Cleland in the county seat of Orange County.

### \$1000.00 Bail in Kern County

Kern County offers a pleasing contrast to Orange County in the importance placed upon the observance of laws that regulate the practice of medicine. M. C. Leong, a Chinese herbalist, was arrested on June 10th for violating the Medical Practice Act and released on \$1000.00 bail. At his trial on July 2nd he pleaded guilty and was fined \$200.00. Those communities that encourage lawbreakers by indulging them with inconsequential fines are sowing seeds of disorder.

### Bench Warrant for "Cancer Specialist"

A bench warrant to compel Dr Samuel Chamley "cancer specialist" to return from Los Angeles to San Francisco was issued by Superior Judge Sturtevant in connection with Mrs. Sophie Chamley's suit for divorce.—San Francisco "Chronicle."

## Deaths

Booker, Thos. A. A graduate of Med. Dept. Vanderbilt Univ., Tenn., 1898. Licensed in California, 1898. Died in Selma, August 21, 1920.

Calderon, Eustorjio. A graduate of University of Zurich, Switzerland, 1887. Licensed in California, 1891. Died in San Francisco, August 25, 1920.

Klingerman, George Eliot. A graduate of George Washington University, Washington, D. C., 1910. Licensed in California, 1911. Died in Glendale, Calif., May 27, 1920.

Kyle, John J. A graduate of Miami Medical College, Ohio, 1890. Licensed in California, 1911. Died in Los Angeles, August 29, 1920. Was a member of the Medical Society, State of California.

Mussey, John Milton. A graduate of Castleton, Vt., 1854. Died in Oakland, Calif., Sept. 3, 1920.

Osler, Charles. A graduate of University of California, 1878. Licensed in California, 1878. Died in Modesto, August 18, 1920.

Ryan, L. M. A graduate of Rush Medical College, Ill., 1907. Died in Banning, Calif. Was a member of the Medical Society, State of California.

# California State Journal of Medicine

OWNED AND PUBLISHED MONTHLY BY THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

BUTLER BUILDING, 135 STOCKTON STREET, SAN FRANCISCO

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CELESTINE J. SULLIVAN

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Contributors, subscribers and readers will find important information on the sixteenth advertising page following the reading matter.

VOL. XVIII

NOVEMBER, 1920

No. 11

## INDIVIDUALISM IN MEDICINE

The recent campaign involving the anti-health measures, brought out clearly certain types of medical minds. No properly informed person had any doubts concerning the pernicious character of the first three proposed amendments and the propriety of the last, but they reacted in different ways.

To those who threw their energies into the effort to protect human life and promote social betterment in this issue, we owe our thanks.

There are those, however, who assumed an attitude of non-resistance. Their belief is that the public has a perfect right to go unvaccinated if it choose so to do. That it will learn through experience the folly of its ways. They hold that a man who employs an uneducated and unsafe vender of cures takes his chances, and deserves what poor treatment he gets.

They think that if the populace can't see the great benefits of animal experimentation let them feel the blight of their stupidity, let them suffer personally and economically. In fact, their policy is that of *laissez-faire*; let everybody have a clear field, and may the best man win. Medical legislation is futile and beneath their dignity. They then assume an academic reserve, and "let George do it."

An analysis of their mental reaction amounts to this: they naively assume that because of their superiority intellectually and culturally the people must select them as their guide, philosopher and friend, in time of trouble, and the quack stands no chance. Now as a matter of experience we know that regardless of culture and social station the sick man and his friends are not good judges of their doctor. They cannot appreciate the fine points of his ability; it is too technical. The

best of them at times will resort to a charlatan with his plausibilities and sophistry; will follow the crowd in its emotional wave against sound health measures, and will pit their misinformed minds against the findings of an exact science.

Progress in medical education and advancement in public health policies, have only been achieved through persistent gentle force and persuasion.

In the face of superstition and enmity we have fought for anatomical dissection, vaccination, quarantine measures, food inspection, animal experimentation and higher medical standards. We have educated the people as we progressed. But no spirit of non-resistance won these triumphs! This Hindu philosophy wins no battles. Great intellectual aloofness and moral superiority did not achieve this. Someone must strive for these gains. Where the doctor, through timidity, laziness or superiority, is not a willing worker for public health, he is unworthy of the support and protection of the great economic combinations of modern life.

## CLINICAL CONGRESS OF SURGEONS

On November 19th and 20th the first annual meeting of the California section of the clinical congress of the American College of Surgeons will convene in San Francisco, with headquarters at the Palace Hotel. During this meeting surgical clinics will be conducted in the various hospitals of the city during the morning hours, and scientific sessions will occupy the afternoons. A meeting open to the public will be held Friday evening, November 19th. All members of the California State Medical Society are cordially invited to attend the scientific sessions, of which detailed notices will appear later.



### MALPRACTICE—INDEMNITY DEFENSE FUND

Some of our members apparently are still ignorant of the benefits and advantages which they enjoy or may secure by reason of their membership, particularly those relating to protection from malpractice claims and actions. For their benefit we summarize here some of the basic facts.

Any member who keeps his dues fully paid in his County Society and the State Society, is thereby entitled in a meritorious case to the services of the Society's Legal Department in protecting him from an unfounded malpractice claim or suit. This, of course, should the court or jury rule against him, does not provide for the payment of such an adverse judgment.

To afford such protection and not compel members to resort to insurance companies for it, the Society created in 1916 the Indemnity Defense Fund, which any member in good standing can join by paying \$15.00 in cash and executing a note for an additional \$15.00, without interest, payable one year thereafter.

By joining the Fund a member does not obligate himself to pay further assessments. No assessment has been found necessary during the existence of the Fund for nearly four years. Some small assessments will undoubtedly be levied from time to time, but they will be far less than the lowest insurance premium charged by private insurance companies, which is \$15.00 per annum.

If a member already carries insurance, the Society does not recommend that he drop it, but does strongly recommend that he not only continue his insurance but join the Fund as well. A member thus obtains double protection, which in a given case may prove very beneficial.

Members are protected by the Fund only as individuals. Each member of a partnership must join. The same rules obtain precisely as those which govern the member's right to the services of the Society's Legal Department when not a member of the Fund.

We are occasionally asked, why should a member of the Society who pays a fairly large annual due, say \$18.00 or more, to his County Society, be called upon to pay \$30.00 to the Fund? The answer upon a little reflection is very simple and obvious. The purpose of the annual dues to the Society is well understood. A portion of the State dues goes to the maintenance of the Legal Department. The Legal Department covers the court costs and attorneys' fees in unmerited malpractice claims and suits, but if, unfortunately, a judgment is recovered against a member, *the member must pay that himself*, unless he carries insurance in an insurance company *or unless he joins the Fund*. It was to give this additional financial protection that the Fund was organized. A very large proportion of the members of the State Society now belong to the Fund. Those who

have not joined should not hesitate to do so. Enlightened self-interest should impel those still without this protection to secure it at once by mailing a check for \$15.00 to the Secretary before laying this issue to one side. Services rendered today may form the basis of an annoying and even dangerous suit in court some months hence.

### OPHTHALMOLOGY VS. OPTOMETRY

Ophthalmology is an easy specialty for the optometrist only; the ophthalmologist fully confesses that even four years of college, four of medicine, one as an interne, and two in an ophthalmological hospital, render him none too sure of the correct diagnosis and treatment of the diseases of the delicate organ of his specialty. Hats off to the optometrist, who freely admits—(see the advertisement in any street car)—that he relieves headache, tired feelings, eye strain, sleepiness, red eyes, sore eyes, styes and pimples. It is true that he does not examine the fundus. He, however, prescribes glasses for nothing and sells them for a good profit—(evidently he considers his skill in prescribing as worth little in comparison to the difficulty of manufacture)—puts glasses with an equal amount of assurance on the noses of the glaucomatous, the cataractous, the diabetics and the arterio-sclerotics—all this without medical history, without reference to factors such as age, sex, work, general health, use of eyes or previous wearing of glasses. The tailor, the shoemaker, the hatter and haberdasher treat our anatomical variations and eccentricities with more regard.

To the ophthalmologist slowly comes the caravan of cripples—this one has glaucoma, has had it for a year. Six pairs of glasses have for two months apiece "helped him";—this one has incipient cataract—from optometrist to optometrist he has wandered, plodded homeward his weary way—richer in glasses and poorer in pocket. This one has diabetic retinitis—and glasses have not relieved his increasing thirst and decreasing weight; and somehow nerve atrophy has not been benefited by a +0.50 cylinder, axis 90°; they are given proper advice for a fee usually not in excess of one-half the cost of their last tortoise shell framed spectacles—and, realize now that an eye is an eye, and a tooth is a tooth, and that Painless Parker and Optimo, the optometrist, are first cousins.

We take off our hats again to the few opticians, there are some such oasis in the howling wilderness, who stick to their last. They are experts in the grinding of lenses, in the proper fitting of frames, in the art of making a spectacle seem to belong to the face—and to this delicate and grateful task they stick, as master workmen, and make the carefully worked out prescription of the ophthalmologist of real service to his patient. A pernicious state law allows them to prescribe—but they have the good sense and ethical feeling to realize that the patient's good is for the best of all—and that in time, between the pure ophthalmologist and the pure dispensing optician the optometrist brays like an ass in the wilderness.

### THE "FRINGES" OF MEDICINE

Physicians as a class are well acquainted with what might be termed Medical Practice Proper; they have an essential knowledge and skill in diagnosis, prognosis and medical and surgical therapeutics. They accept without question that diagnosis, and medical and surgical treatment belong to the trained physician.

But step a little away from the body of the scheme of medical practice and consider the "fringe"; think for the moment of anesthesia; then clinical and X-ray laboratory procedures; physical therapy of one or another sort, and psychoanalysis and the various other forms of psychotherapy. Immediately it will be noted one or all of these portions of the fringe (but also equally essential parts of medical practice itself) have been, through lack of interest, and for other reasons, allowed to fall into the hands of lay people who lack the knowledge and skill necessary to the practice of medicine.

The State Society took a definite stand on the practice of anesthesia at its last meeting, declaring in effect that the practice of anesthesia was the practice of medicine and therefore that, whenever possible, anesthetics should be administered by physicians.

The attitude of a large percentage of the medical profession in California is approaching a place where a similar stand may be demanded as regards the laboratory, physiotherapy and any other medical procedures. Clinical and X-ray laboratories, physiotherapy departments and the like, whether in hospital, clinic or private practice, should not exist without direction and control of competent, graduated, and licensed physicians.

There are trained physicians in every community of any size who are ready and prepared to do the type of work under consideration. If the town is not big enough for a physician to find it profitable to do the work, it does not seem reasonable that a lay commercial firm should find it advantageous.

Therapeutic and other procedures, in addition to their value in the alleviation of suffering and restoration from disease or disability, carry with them elements of danger when placed in unskilled hands. Accept the physiotherapist who by proper training can apply such manipulation, massage and the like as you may think indicated in a given case; but remember he has not the medical knowledge that may determine when this or that form of treatment may actually be detrimental to your patient.

Laymen have recently opened offices for the practice of psychoanalysis. Such individuals have not been trained to recognize a paresis case, or a paranoiac with homicidal potentialities. During the search for the "complex" the result of admixture of interstitial gland and brain substance, the patient may decide to take the life of someone of great value to the community. Lay medical practice shows its danger to public security as well as public health.

In every other branch of human endeavor the

trained man seems to be in demand. Medical men in the rush from patient to patient and in the day that is all too short have seemed satisfied to watch the body of the practice of medicine and leave the fringe to laymen. Now times have changed; physicians are seeing, and will soon demand, that medical practice in all of its ramifications shall indeed be carried out by or under the direction of regular physicians.

### COUNCIL OF SOCIAL AND HEALTH AGENCIES

There has just been formed in San Francisco a Council of Social and Health Agencies, which is designed to function as a clearing house for the relief and social problems of the city, and which should bear the same relation to municipal affairs that the State Conference of Social Agencies bears to State affairs. The objects of such a Council are (a) the promotion of real co-operation among all the public and private health and social agencies, (b) the development of higher standards and the promotion of greater efficiency in social and health work, (c) the prevention of waste and duplication of effort, (d) to advise in the undertaking of new work by organizations already in existence and in the creation of new agencies, (e) the promotion of all necessary activities and the discouragement of all unnecessary ones.

It is obvious that in any such program the position of the medical profession is important. If all questions of health are removed, the bulk of social work is done. While the actual administration of relief programs is properly in the hands of technically trained and experienced workers, it is none the less true that the advisory interest of the physician is absolutely essential if a sound progress is to follow. It is worth noting in the case of the new San Francisco Council, which has been organized and planned with unusual care and foresight, that on the directorate of twenty persons there are four physicians.

Some such co-ordinating body of all relief and medical agencies could with propriety and for efficiency be instituted in every town large enough to have any social problems requiring organized relief. A round-table discussion is the best way to arrive at peace and progress.

### Special Articles

#### THE ROENTGEN DIAGNOSIS AND LOCALIZATION OF PEPTIC ULCER.\*

By R. D. CARMAN, M. D.

Section on Roentgenology, Mayo Clinic, Rochester, Minn.

For a long time there has been a controversy over the relative merits of surgical and medical treatment of peptic ulcer. The crux of the question seems to lie mainly in accurate diagnosis. In most cases the surgeon has the advantage of being able to see, feel, and demonstrate the presence of ulcer before deciding on the method of operation. Very few medical men, however, can be certain of the presence of ulcer before begin-

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



ning the medical management of a case, unless the ulcer can be demonstrated by the roentgen-ray.

Treating ulcers diagnosed on clinical findings on the one hand, and on roentgen findings on the other, are two entirely different matters, for in the former instance their existence is highly problematic, while in the latter it is reasonably well established. Although the roentgen-ray is not infallible and may not distinguish simple from malignant ulcers, it certainly can point to the fact that a lesion is present. Furthermore, it will often be the means of recognizing the disease earlier, which is of the greatest importance from the standpoint of treatment.

No other organ in the human body has been accused of so many disorders which it never had as has the stomach. It has been judged guilty and sentenced to treatment when it was perfectly innocent. It has been treated energetically when the symptoms were merely reflex and secondary to organic trouble located in some other organ.

Many physicians are of the opinion that the symptomatology of duodenal ulcer is more exact than that of gastric ulcer. This impression is probably due to the fact that duodenal ulcer is about four times as common as gastric ulcer, and not to any greater exactness of symptomatology. The clinician starting with a diagnosis of peptic ulcer is likely, therefore, to be influenced in making a diagnosis of duodenal ulcer, not because of any characteristic symptomatology, but by the fact that surgery has proved its greater frequency.

Graham found in our case histories no note of symptoms or group of symptoms that always warranted differentiation of gastric and duodenal ulcer; from this it seems that the clinician who depends on the history alone for localization of the ulcer will often find himself mistaken. Then, too, especially after the development of complications, ulcers sometimes lose their typical histories and may cause symptoms inseparable from those of other abdominal complaints. Moreover, many patients, particularly neurotics, may have learned the ulcer symptoms from former examinations and interrogations, and thus influenced they recite a history typical of ulcer. Error in such cases can usually be avoided by roentgen examination.

The localization of peptic ulcer has an importance apart from diagnostic accuracy. For instance, in 245 cases diagnosed gastric ulcer by the roentgen-ray and operatively confirmed during the years 1918 and 1919, thirty-three (14.47%) were found to be carcinomatous. Twelve of these thirty-three malignant gastric ulcers were diagnosed clinically, but twenty-one, or 8.6% of the total number, were not recognized as malignant before operation. Only six primary malignancies were found in 4,500 operations on the duodenum. Since diagnosis is the basis for treatment, diagnostic separation of gastric from duodenal ulcer should, therefore, be of invaluable assistance to the physician from the standpoint of prognosis.

Table 1.

## ROENTGEN-RAY DIAGNOSIS AND LOCALIZATION OF THE PEPTIC ULCER.

July 1, 1918, to January 1, 1919.

*Mayo Clinic.*

Stomachs examined .....	3890
Cases diagnosed peptic ulcer.....	528
Operations .....	343
Diagnosis confirmed at operation (98.21%)..	337
Incorrectly diagnosed (cancer of the stomach, 3; cholecystitis and appendicitis, 1; cholelithiasis with duodenum buried in adhesions, 1; appendicitis, 1) (1.79%).....	6

Three thousand eight hundred and ninety of 23,598 patients who presented themselves at the Mayo Clinic from July 1, 1918, to January 1, 1919, complained of gastric symptoms sufficient to warrant roentgenologic study. Four hundred and seventeen of these 3890 cases were diagnosed duodenal ulcer by the roentgen-ray and 111 gastric ulcer, a ratio of about 4 to 1. Two hundred and fifty-five of the 417 cases diagnosed duodenal ulcer were submitted to operation; in 246 the diagnosis was confirmed. Three of the nine cases incorrectly diagnosed proved to be gastric ulcer, two were diagnosed as duodenal and gastric ulcer when only the gastric ulcer was present, one was cholecystitis with the duodenum bound down in dense adhesions, one cholecystitis and appendicitis, one cancer of the stomach, and one appendicitis with no upper abdominal pathology.

## DUODENAL ULCER.

Cases diagnosed duodenal ulcer.....	417
Operations .....	255
Diagnosis confirmed at operation (96.47%)..	246
Incorrectly diagnosed (gastric ulcer, 3; double lesion and only gastric ulcer present, 2; cholecystitis with duodenum bound in dense adhesions, 1; cholecystitis and appendicitis, 1; cancer of the stomach, 1; no upper abdominal pathology, 1; appendicitis, 2).....	9

Operations were performed in eighty-eight of the 111 cases diagnosed gastric ulcer; in eighty-four the diagnosis was confirmed; two of the four cases incorrectly diagnosed were duodenal ulcers, and two inoperable cancers of the stomach, one because of marked metastasis, and the other because of involvement of the body of the stomach and metastasis.

## GASTRIC ULCER.

Cases diagnosed gastric ulcer.....	111
Operations .....	88
Diagnosis confirmed at operation (95.45%)..	84
Incorrectly diagnosed (duodenal ulcer, 2; inoperable cancer, 2; metastasis, 1; extensive involvement of the pars media and metastasis, 1) .....	4

The discrepancy between the percentages of confirmed peptic ulcers (98.21%) and the confirmation of duodenal (96.47%) and gastric ulcers (95.45%) independently, is due to the incorrect diagnosis in two cases of gastric ulcer and five cases of duodenal ulcer.

Twenty-one cases were diagnosed as "lesion of the outlet." This diagnosis was unavoidable for, while there was evidence of a pathologic lesion in the stomach, there were no roentgen signs charac-

teristic of any known disease. Eighteen of these twenty-one patients were operated on and the diagnosis confirmed.

Table 2.

CASES IN WHICH A DEFINITE PATHOLOGIC CONDITION WAS SHOWN BUT ACCURATE LOCALIZATION WAS IMPOSSIBLE.

Cases diagnosed "lesion at outlet".....	21
Operations .....	18
Final diagnosis of the 18 cases:	
Gastric ulcer .....	4
Duodenal ulcer .....	3
Gastric and duodenal ulcer.....	1
Cancer of the stomach.....	8
Cholelithiasis with marked adhesions.....	1
Lump of questionable nature in the pyloric muscle .....	1

Sixty-seven cases were diagnosed "indeterminate," which in our work signifies that from a roentgen-ray standpoint it is impossible to express either a negative or a positive opinion. The clinicians understand that such a report is not to be considered.

Table 3.

CASES WITHOUT CHARACTERISTIC ROENTGEN FINDINGS.

Cases diagnosed "indeterminate stomach and duodenum" .....	67
Operations .....	12
Final diagnosis of the 12 cases:	
Duodenal ulcer .....	5
Gastric ulcer .....	1
Cholecystitis .....	2
Cholecystitis with stones.....	1
Cancer of the stomach.....	1
Lesion at ring, questionable in character.....	1
Nodules in the liver (questionable cancer)...	1

In 3,105 of the 3,890 cases the diagnosis was negative. In 351 of these, operation was done for various abdominal conditions; the surgical report on the stomach and duodenum was negative in 336; thus the roentgen-ray gave a positive diagnosis in 95.76 per cent. of the negative cases.

Table 4.

THE VALUE OF "NEGATIVE" ROENTGEN DIAGNOSIS.

Cases diagnosed "negative stomach and duodenum" .....	3105
Exploration of the stomach and duodenum during operation for various abdominal conditions .....	351
Diagnosis of "negative stomach and duodenum" confirmed by surgeon (95.76%)....	336
Diagnosis of "negative stomach and duodenum" not confirmed by surgeon (duodenal ulcer, 14; gastric ulcer, 1) (4.24%).....	15

These findings show that the roentgen-ray was correct in the diagnosis of peptic ulcer in 98.21 per cent., while in the localization of ulcer it was correct in more than 95 per cent., clearly indicating that the roentgenologic examination has an exactness which the clinical findings lack.

I do not wish it understood that I believe the roentgen-ray examination should exclude all other examinations, but I do believe that if the roentgen finding needs a clinical prop. it is no more accurate than the clinical diagnosis alone.

The roentgen signs of peptic ulcer are far more

definite than the clinical signs and symptoms of many diseases, and if the roentgenologist is unable to make a diagnosis on roentgen signs alone the clinician should disregard his opinion.

By the aid of the roentgen-ray not only a single lesion, but also double lesions may be visualized, such as multiple ulcers in the stomach, gastric and duodenal ulcer, gastric cancer and duodenal ulcer, gastric and colonic cancer, with or without metastasis in the bones or lungs, and gastro-intestinal disease with accompanying disease in the chest, the gall-bladder, and the urinary tract.

Deformity of the luminal contour, either organic or spasmodic, is the principal roentgenologic sign of disease in the digestive tract, not only revealing a lesion but directly showing its location, its size, and often its character. It shows as an addition to or a subtraction from the luminal outline when brought into view by the use of substances opaque to the roentgen-ray. Striking examples of organic deformity are seen in the filling defect resulting from gastric cancer and the niche of gastric ulcer, while spasmodic deformity is seen in the incisura of duodenal ulcer and the spasmodic hour-glass of gastric ulcer, the diagnostic value of all of which must be conceded.

Many roentgenologists refuse to make a diagnosis in the absence of direct signs, and claim that complexes made up of indirect signs are of no value. This view is far too radical, for if roentgen-ray diagnoses were limited to cases in which direct signs only are noted, many lesions of the alimentary canal would pass undiscovered. Often more remote phenomena must be considered in the diagnosis, such as alterations of motility, tonus, and peristalsis. All of these manifestations are affected by spasm. For instance, we are more or less dependent on changes of contour, spastic in nature but set up by an intrinsic lesion, such as the spasmodic hour-glass of gastric ulcer or the spastic deformity of duodenal ulcer. We must also be able to recognize the spastic deformity produced by extrinsic lesions remote from the deformed organ. Such deformity may simulate that produced either directly or indirectly by an intrinsic lesion. Thus two types of spasm are met with; one may be spoken of as intrinsic, the other as extrinsic. The first is often a help in diagnosis, the latter often a hindrance.

Our statistics show that 95 per cent. of the chronic peptic ulcers are demonstrable by the roentgen-ray. It is the trend of opinion that many ulcers are probably potential cancers; hence the advantage of an exact diagnosis of gastric ulcer afforded by the roentgen-ray is apparent.

#### GASTRIC ULCER.

Four types of gastric ulcers may be distinguished at operation:

1. Small mucous erosions and minute, slit-like ulcers.
2. Penetrating, or perforating ulcers with relatively deep craters.
3. Perforated ulcers, with or without the production of accessory pockets.
4. Carcinomatous ulcers.

The first type of ulcer, the small mucous erosion, offers the greatest difficulty to roentgenologic



detection. It is either a superficial denudation, or a mere slit in the mucosa incapable of holding enough barium to make a visible projection from the gastric lumen.

The penetrating or perforating ulcer which has burrowed more or less deeply into the gastric wall, but does not penetrate the peritoneal coat of the stomach, produces a definite crater jutting from the lumen of the stomach. The degree of facility with which this crater can be seen by the roentgen-ray depends more on the location than on the size of the crater.

The perforated ulcer which has excavated through the peritoneal coat of the stomach may, at the time of perforation, become covered by gastrohepatic omentum, or, if the perforation is chronic, it may be protected by adhesions. In either case the roentgenologic signs are the same as in the penetrating or perforating ulcer before perforation takes place. The only condition indicating perforation, therefore, is the depth of the crater. Perforation of an ulcer with a continuation of the destructive process into adjacent tissue results in the formation of an accessory pocket outside the stomach.

Carcinomatous ulcers are not, as a rule, distinguishable from non-malignant ulcers; their roentgenologic signs are very much the same as those of penetrating and perforated ulcer.

The roentgen-ray signs of gastric ulcer may be divided into three groups:

1. Direct signs (pathognomonic)
  - a. The niche
  - b. The accessory pocket.
2. Indirect signs (but diagnostic)
  - a. Organic hour-glass stomach
  - b. Spastic manifestations
    1. Spasmodic hour-glass stomach
    2. Gastrosplasm.
3. Corroborative signs (not diagnostic)
  - a. Retention from the six-hour meal
  - b. Gastric hypotonus
  - c. Alterations of peristalsis.

The niche is a bud-like projection from the barium-filled stomach wholly within the gastric wall, and is an index either of a penetrating or of a perforated ulcer which has not excavated an adjacent organ. The accessory pocket, sometimes loosely spoken of as a "diverticulum," is a pouch-like excavation resulting from extension of a perforated ulcer into near-by tissues, usually the pancreas or liver, less often the lesser omentum, abdominal wall, or spleen. An accessory pocket ranges in diameter from 1 to 5 or 6 cm. and may appear like a miniature stomach with successive layers of gas, fluid, and barium; it may retain barium after the stomach is empty. An accessory pocket in the liver moves with respiration, while a pocket in the pancreas does not. The latter also has a more posterior situation, as shown by the oblique view, and a wider excursion when the patient is rotated.

Both the niche and the pocket are obviously signs of advanced ulcer, but ulcers not sufficiently extensive to produce an excavation that can be

visualized on the screen or plate are rarely found at operation; they are mere mucous erosions or small crevices, and their diagnosis can be made only on less definite signs such as spasmodic hour-glass stomach.

Indirect signs (but diagnostic):

1. Organic hour-glass stomach.
2. Spastic manifestations.
  - a. Spasmodic hour-glass stomach.
  - b. Gastrosplasm.

*Organic hour-glass stomach.*—This condition is an occasional sequence of penetrating or perforated gastric ulcer. It is seen most typically in ulcer, but is found also in gastric cancer and gastric lues. The constricted portion is infiltrated or involved in adhesions, and is present at operation. Roentgenologically it can not be distinguished from the spastic type of hour-glass resulting from ulcer, but should be subjected to the same tests as the latter. Like the spastic form, it is usually B-shaped, with a short canal near the lesser curvature. This serves generally to distinguish it from the cancer or syphilitic hour-glass, which is more often X-shaped, with a long canal, centrally placed. All forms of organic hour-glass stomach have certain features in common: they are persistent at all examinations, constant in situation, and remain unaltered after the patient has been given an anti-spasmodic to physiologic effect.

*Spasmodic hour-glass stomach.*—Two types are recognized, the intrinsic and the extrinsic. Intrinsic spasm is a convenient designation for spastic contraction of the gastric musculature arising directly from a lesion of the stomach. In the majority of cases the lesion is an ulcer; cancer, however, may produce a similar local spastic indrawing of the gastric wall; the organic hour-glass accompanying tuberculous and syphilitic lesions is also usually accentuated by spasm.

Extrinsic spasm is produced either by lesions outside the stomach or at all events is accompanied by such lesions. It is an occasional cause of hour-glass deformity, as seen roentgenologically, and has been noted in association with duodenal ulcer, disease of the gall-bladder or appendix, and sometimes in emotional states. Spastic hour-glass due to extrinsic causes, with the exception of that due to duodenal ulcer, can usually be distinguished from other forms of spasmodic hour-glass.

The purely spastic hour-glass deformity, whether of intrinsic or extrinsic origin, is rarely present at operation because of the relaxation produced by narcosis, and for this reason the roentgenologist is sometimes wrongfully accused of an error in diagnosis.

For the differentiation of intrinsic and extrinsic spastic deformity tincture of belladonna is prescribed, starting with twenty drops and increasing the dose frequently until the physiologic effects, such as dryness of the throat, and pupillary dilatation occur; the patient is then re-examined. It is true that belladonna or atropin will not differentiate spasmodic and organic forms of hour-glass stomach, but they will differentiate intrinsic and extrinsic spasm. When the hour-glass contraction is the only roentgen sign this test must be very

carefully carried out, as otherwise the roentgenologist may lead the surgeon into error. It has been my experience that an hour-glass that resists belladonna to the physiologic effect means a lesion either of the stomach or duodenum; and regardless of whether or not the hour-glass is present at operation, the surgeon will find the cause, if he looks for it.

Corroboration signs (not diagnostic):

1. Retention from the six-hour meal.
2. Gastric hypotonus.
3. Alterations of peristalsis.

These signs either singly or in combination have no diagnostic value since they are seen in other diseases and at times in normal stomachs.

*Six-hour retention.*—A distinct residue in the stomach from the six-hour meal is seen in 55 per cent. of the gastric ulcer cases. In this respect gastric ulcer stands a close second to gastric cancer. The manner in which an ulcer causes retention is not definitely known in many cases. While it is easy to understand how an ulcer located at the pyloric ring may cause obstruction, it is hard to understand why one situated remote from the pylorus should do so. But practically 90 per cent. of all gastric ulcers occur in the vertical portion of the stomach above the incisura angularis. The retentions which they produce have been assigned respectively to pylorospasm excited by the ulcer, to impairment of peristalsis, and to hypotonus. A retention alone is not sufficient evidence for the diagnosis of ulcer, since various causes may operate to produce a six-hour residue.

*Gastric hypotonus.*—An evident loss of tone shown by sagging and expansion of the lower gastric pole is a frequent accompaniment of ulcer, not only of ulcers causing obstruction but also of those situated rather remote from the pylorus. Hypotonus alone possesses little significance, for it is an expected finding in the numerous patients of enteroptotic build; but if the hypotonus does not accord with the habitus of the patient, the possibility of an ulcer should be considered.

*Abnormalities of peristalsis.*—The variations of peristalsis met with in gastric ulcer include weak peristalsis, hyperperistalsis, especially of irregular type, absence of peristalsis from the ulcer-bearing area, and anti-peristalsis. None of these is peculiar to ulcer, but all of them are more or less suggestive of a gastric lesion. All lesions of the gastric wall tend to interfere with peristaltic movement in the area involved. If an ulcer is located at a point where peristalsis commonly is visible a noticeable absence appears in the ulcer area. Anti-peristalsis is occasionally noted with gastric ulcer, and while it is not necessarily indicative of ulcer, it generally denotes the existence of organic disease either in the stomach or duodenum, with or without obstruction.

*Carcinomatous ulcer.*—The roentgenologic signs of ulcer differ so much from those of carcinoma in the larger number of cases that differentiation requires no effort. A callous ulcer with a niche, or a perforated ulcer with pocket formation, has no roentgenologic resemblance whatever to a well-developed carcinoma. Usually ulcers project from

the gastric contour, while in carcinoma the growth with its resultant irregularity extends into the gastric lumen. Between the typical ulcer and the typical carcinoma there is a small percentage of cases in which the roentgenologic differentiation is impossible. These are the border-line cases, in which carcinoma cells are found in the ulcer. In such instances the roentgen-ray signs are chiefly those of ulcer, and a diagnosis of ulcer is likely to be made. Experience has impressed me with the fact that an ulcer crater, with a base of extreme size, is to be suspected of malignancy. A niche 3 cm. or more in diameter is likely to show microscopic signs of carcinoma.

#### DUODENAL ULCER.

*Pathology.*—The roentgenologist should have a knowledge of the gross pathology of duodenal ulcer before undertaking its roentgenologic study. Fully 95 per cent. of such ulcers are found in the first 4 or 5 cm. of the duodenum, usually on the anterior wall. Less than 5 per cent. are more distally located and may be found in any part of the duodenum. A duodenal ulcer, although commonly single, may have a companion or contact ulcer on the opposite wall, or there may be several ulcers variously grouped and in various stages of development. Judd, who has excised many ulcers of the duodenum recently, is impressed with their frequent multiplicity. The macroscopic appearance of an ulcer depends on its age and the resulting amount of scar tissue. A recent ulcer may be so small and shallow that no evidence of it can be seen on the serosa. External scarring is visible in a large number of ulcers, but this may occur without marked contraction or deformity. They vary in diameter from 1 mm. to 2 or 3 cm.; in exceptional instances they may attain a diameter of 5 cm. The chronic ulcers with extensive cicatricial contraction cause organic deformity, and in 25 per cent. stenosis is evidenced by a six-hour retention. Although chronic duodenal ulcers may show crater formation similar to that of gastric ulcer, it is a notable fact that they are characterized by surface extension rather than by depth. Duodenal ulcers may also penetrate to the serosa or perforate the duodenal wall. The perforation may be sealed by the adhesion of adjacent tissues, or the ulcerative processes may invade the pancreas, liver, or gall-bladder, and produce an excavation similar to that of perforated gastric ulcer. An actual diverticulum or pouching of the gut is rarely seen proximal to a stenosing ulcer.

#### ROENTGEN SIGNS.

The roentgenologic indications of duodenal ulcer may be classified as follows:

1. Direct signs
  - a. Deformity of the duodenal bulb
  - b. Duodenal diverticulum.
2. Indirect signs (diagnostic)
  - a. Gastric hyperperistalsis
  - b. Gastric retention from the six-hour meal (the combination of hyperperistalsis with gastric retention and a normal gastric outline is diagnostic of duodenal ulcer with obstruction).

*Direct signs.*—Deformity of the duodenal con-



tour, particularly of the first portion, the duodenal bulb or cap, stands first among the roentgenologic signs of diagnostic value. The assumption that the distortion of the cap represents the organic deformity produced by the ulcer has contributed strongly to the doubt with which this sign was received, since it is known that many duodenal ulcers do not materially alter the duodenal topography. Yet ulcers of this kind often give rise to bulbar deformity quite out of proportion to the organic changes found at operation. The deformity of the bulb in these cases is largely the result of spasm, and it is possible to understand why the distortion of the bulbar shadow is more exaggerated than the deformity seen at operation. Indeed, if this were not a fact, the roentgen-ray would be of little value in the diagnosis of many duodenal ulcers. Absence of spasm would also explain why, in some cases, no irregularity of the bulb-shadow is present, a condition which I have observed in a few cases and which proves beyond question that a well-rounded-out normal bulb does not exclude the possibility of duodenal ulcer; it also demonstrates that the spasm is not always constant.

The deformities more or less characteristic of duodenal ulcer may be enumerated as follows:

1. General distortion with the entire contour of the bulb deformed. This distortion is largely due to spasm, which is practically always persistent and unvarying.
2. The niche type in which the excavation of the ulcer is seen projecting from the bulb. This type is rare and may or may not be accompanied by organic or spastic deformity.
3. The incisura type of deformity, either single or bilateral. The incisura occurs in the plane of the ulcer, and may be the sole abnormality of contour observed. Usually narrow but of variable depth, persistent and permanent as to situation, it suggests the nature of the lesion and indicates its site. No cavity or organic deformity produced by the ulcer is demonstrable, but the spasm alone is diagnostic.
4. The diminutive bulb. This is represented by a small, compact mass of barium in the cap. It is usually produced by an ulcer stenosing the duodenum, so that only the proximal portion of the bulb is filled. Unless other signs are present, such as gastric retention, antral dilatation, and hyperperistalsis, a diminutive cap should not be considered indicative of ulcer.
5. The accessory pocket. This results from a perforated ulcer which has invaded tissue outside the duodenum, forming a cavity outside the bulbar contour.
6. The diverticulum. A diverticulum in the first part of the duodenum is relatively uncommon. It is found near the pylorus, and its relationship with duodenal ulcer and scars seems well established. The few duodenal diverticula that I have observed have all been associated with duodenal ulcer. Both the true and false type are recognizable roentgenologically and, when present, constitute an excellent sign of duodenal ulcer.

All the deformities named are typical and pathognomonic of ulcer. Likewise, when the bulb fills completely and is of normal contour the fact is readily apparent, but to distinguish a deformed cap from one partially filled is sometimes troublesome. Cases without ulcer are seen in which the bulb fails to show a normal contour simply because of incomplete filling. This is likely to happen in cases in which the duodenum is large, but the deception is evidenced by the varying aspect of the deformity.

In an overwhelming preponderance of cases a constant deformity means duodenal ulcer. Such deformity is not absolutely diagnostic, since distortion of the duodenal shadow may result, though rarely, from an adhesion-producing process in the right upper abdominal quadrant, or possibly from reflex spasm set up by lesions outside the duodenum. Pressure against the spine may deform the duodenum, particularly its upper border, but by using both screen and plate the cause should be apparent.

*Indirect signs. Hyperperistalsis.* Hyperperistalsis consists of three or more waves running along the stomach at one time. It is seen in a large proportion of cases and is most exaggerated in the obstructive cases, but it occurs also when there is no obstruction. A characteristic feature is the regular succession and symmetrical correspondence of the waves on both curvatures. A mere exaggeration of wave depth should not be confounded with hyperperistalsis, since an essential feature of the latter is an increase in the number of the waves, although they may also show unusual vigor. Hyperperistalsis is often intermittent in character, periods of activity alternating with periods of rest. Of course the phenomenon of hyperperistalsis is not limited to duodenal ulcer, for it may accompany disease of the gallbladder or appendix, or be seen normally in the hypertonic stomach. Obstructing pyloric and prepyloric lesions are sometimes attended by hyperperistalsis, but in such cases the waves are rarely uniform in depth and sequence, and they are chiefly on the greater curvature. Occasionally, however, this variety of peristaltic exaggeration accompanies a perforated duodenal ulcer.

A logical result of hypertonus and hyperperistalsis is hypermotility, provided no marked obstruction has been produced by the ulcer. Generally speaking, the initial clearance in cases of duodenal ulcer may vary from a slight increase to a profuse flow or it may be abnormally scant with obstruction, and the moderate intermittent outflow of normal conditions may be absent. Hypermotility is not peculiar to duodenal ulcer, for it is a common effect of gastric cancer, achylia, and the diarrheas. On the other hand, about 25 per cent of the duodenal ulcers are sufficiently obstructive to produce a six-hour retention in the stomach. If in addition to the gastric retention there is typical gastric hyperperistalsis, the diagnosis of a duodenal ulcer by x-ray is quite as certain as a diagnosis on any other evidence that can be obtained.

## NASAL PLASTIC SURGERY\*

By H. B. GRAHAM, M. D., San Francisco.

No one surgical procedure is sufficient for any one pathological condition. Therefore, the more familiar a surgeon is with the various methods employed to gain a given result, the better can he adapt himself to the case in hand. This is particularly true in the correction of nasal deformities; each case is a law unto itself, with its peculiar problem to handle. A congenital pug nose, and a depressed fracture of the bridge may appear to offer the same opportunities for the implantation of bone cartilage, but the one may need only the one procedure, whereas the other more than likely may require a resection of the septum, or a refracture of the maxillary bones. One patient may be perfectly willing to allow an injection of paraffine, whereas he might refuse absolutely the more major procedure of a rib transplant.

There is so little of this work done, that the surgeon is very apt to adopt one or two unmodified procedures to the exclusion of many well-recognized ones, which have proved successful in other hands, and his results will be improved by even a knowledge of what may be done, although he may not practice those particular methods. I am, therefore, going to discuss various methods of arriving at the same object, discussing at the same time a few of the more recent ideas concerning their practicability, based on pathological and clinical results.

*Saddle Nose*—is a frequent condition which may be variously corrected by the implantation of various foreign bodies, injection of paraffine, or the transplantation of bone and cartilage. All methods have been successful and none should be overlooked. Of all the methods the paraffine is the simplest and if one follows Eckstein's directions, no untoward results will follow.

It must be remembered that commercial paraffine is a mixture of paraffines of various melting points, and these will separate, when subjected to different temperatures, so that when introduced into the body the paraffine should be uniform in melting point, and the melting point should be higher than that of the body. This can be obtained by fractional distillation only. Any other paraffine is dangerous on account of:

*Firstly.* Foreign toxic substances contained (antimony and arsenic) which may be eliminated by the distillation.

*Secondly.* A tendency to lodge in remote places (wandering) at a future date. I believe that this has taken place when a mixed paraffine or vaseline has been used, in spite of the strenuous contradictions of Gersuny and Moskowitz.

One case I saw in Vienna had typical paraffine discoloration of the whole face a few years after the injection of a vaseline-like mixture into the nose, and I can conceive of no other cause for the lesion save the wandering. This has never been known to occur with a fractionally distilled hard paraffine.

*Thirdly.* The liability to embolus in the eye veins; this has been reported and is entirely eliminated by pressure made on the sides of the nose.

If the paraffine is delivered semi-solid subcutaneously and not intradermally at the place hoped for, no damage will be done and the patient will be entirely satisfied, but there must be a complete knowledge on the part of the operator of the dangers and how to avoid them, and a correct armamentarium for the introduction of the paraffine. The ideal place for its use is in small irregularities in contour and depressions such as are seen (seldom at present) in cases where a high resection of the septum has been done.

In a few cases when the whole bridge of the nose did not require elevation, I have used a piece of cartilage of the septum, doing the whole operation in the office under local anaesthesia. The hairs of the nose are trimmed, face and nostrils cleaned with alcohol and tincture of iodine, and an intranasal incision made in the superior and lateral aspect about one centimeter from the tip; a sharp pointed elevator is then shoved up the bridge subperiosteally, if possible, to the required distance, and a bed made for the graft. This bed must extend well into the tip of the nose, as the tendency is for the graft to slip out at the artificial opening; this can be avoided by forming a pocket for the proximal end. Adhesive strips are then placed over the nose so as to reduce the bleeding and a resection of the septum done. The cartilage obtained should at once be inserted into its new bed and a closure made to avoid infection, the septum resection being completed later. Following the resection the nose is packed with iodoform gauze. The adhesive straps may be readjusted and kept in place for a few days, the packing is removed in twenty-four hours, and no further manipulation is indicated. Absolute cleanliness with non-handling of the graft is the secret of success.

The cartilage-bone rib transplant, or a bone graft from the tibia is a more major procedure, but is accomplished in the same way, the transplant of the required length and thickness being obtained by sawing and chiseling a portion of the rib or tibia. The rib does not need to be resected in toto, and in case there is a crack in the implant, it still may be used successfully, for the whole mass is replaced eventually by new bone, and only acts as a skeleton and stimulus for the actification of the osteoblasts.

The introduction of foreign bodies instead of bone was advocated by Barth under the delusion that the whole graft died, but Axhausen in 1908 proved beyond a doubt that part of the bone remains alive, and Eloesser states that although the hard bony matrix dies, the osteoplastic, the regenerative part, the periosteum and greater part of the osteoplastic marrow live. The work of Ely, in this connection, is epoch making; he states as a result of his painstaking researches, that for bone formation three things are necessary: "One—blood vessels; two—either a loose-meshed fibrous tissue or a homogeneous (cartilage) matrix, or a granular or necrotic material; three—a stimulus

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



physiological or pathological, as the case may be. Neither periosteum or marrow is necessary for bone formation; neither of them "forms" bone in the proper meaning of the word. The presence of the bone is the stimulus to a certain extent for the bone formation." Important is it for us, as Eloesser says: "even in most unfavorable conditions, and in the presence of suppuration, all is not lost, the implanted bone is still substituted by living bone."

We are operating in a field that is entirely infected and may be led to feel that as soon as the infection occurs the graft should be removed, but that is not the case, as I have had infection in my own cases, and have seen it in other surgeon's work. In all instances, when we left the graft we got eventually a good result, even though enough sequestra came away to approximate the size of the original graft. Frequent irrigation in those cases helped the repair.

Ely claims that it is always best to place a bone graft next to bone so that the stimulus for bone formation will be increased and the blood vessel and osteoblast activity will be accelerated in both elements. This is why I try to elevate the periosteum over the nose in all cases.

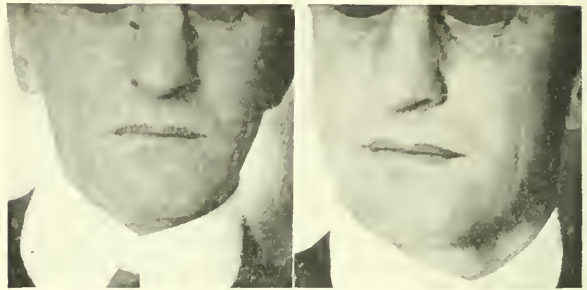
I have an X-ray picture of a case of bone cartilage graft taken two years after operation, which distinctly shows a decrease in the amount of bone present, but apparently shows no change going on in the cartilage. It appears to me by palpation that there is an enlargement of the cartilaginous part of the graft.

Ely and Fisher claim that cartilage is not regenerated; that it becomes absorbed and replaced by fibrous tissue but that would not seem to be the case in nasal work, as Fantozzi relates a case of some years' duration where there seemed to be no change, and refers to a reoperated case of Sicard which macroscopically and microscopically was unchanged. My cases seem to show no change after four years or more.

If the tip of the nose is lowered it may be necessary to support the dorsal graft by a vertical one placed in the columella. This is not an easy matter but can be accomplished successfully, the main difficulty being experienced in making the proper bed for the graft. This is best done as a two-stage operation.

In depressed fractures where the nasal bones have been jammed into the nasal cavity and have united to the maxillary processes in their new position I have refractured along the bridge, and also at the lines of the old fracture, have resected the septum, as there is always a closure of the nasal passages in these cases, and elevated the bridge, then by introducing an intranasal splint for a few days have obtained a good result.

If the nose was originally fractured by a blow from the side so as to produce a deflection of the nose, the fracture may be reproduced by placing a block on the opposite side and giving the nose a sharp blow with a wooden mallet. In case the septum does not need attention this may be all that is necessary. I have done this for ten years past, using a straight piece of steel cushioned at



Refracture



Refracture



Reduction of Hump Nose



Shortening of Nose

the nasal end, so as not to injure the soft tissue any more than is necessary. A piece of wood will do as well. In extreme cases it may be necessary to resect a V-shaped piece on the broader side.

If the nose is congenitally broad (most frequent in Roman noses) it may be remodeled by sawing through at the base, introducing the saw intranasally subcutaneously, and after loosening the nasal bones, fracturing and holding in place by an external splint.

The decreasing of the size of the nose is entirely a different chapter and requires different technic, different armamentarium, and more patience at the operation. The simpler cases may



Implantation of Cartilage from the Rib



Implantation of Cartilage from the Septum

be done under local anaesthesia, but I prefer a general anaesthetic for the more complicated cases, with a post-nasal tampon. The work may be done by an external incision or intranasally. In case of the former the knife should be a thin razor blade held at an obtuse angle to the surface, as though a skin graft were to be taken entering at one side and going through at the other side of the nose. Sutures should be horse-hair, which may be removed early. By this incision one is surprised at the small amount of scar after a lapse of six months. The cases that I have done by the external incision number four and have been confined to smaller elevations at the junction of the cartilage and bone, all being successfully shaved off with a chisel. Much more must be taken away than is apparently necessary at operation, as the wound seems to start a productive bone formation, leading to an increase in the hump rather than to a decrease. This was the result in one case that came to me after having been operated by another surgeon, and I found quite a mass of new bony growth. In addition there was considerable new fibrous tissue present. In this case I removed the whole bony cartilaginous area down to the mucous membrane.

One surgeon introduces a knife intranasally to this area, breaks it up by a number of slashes and leaves the particles in situ, but as I have not seen the cases a number of years afterwards, I am not prepared to pass on the results. I would expect, however, a productive inflammation to be set up which would produce a worse appearance than before the operation. This would certainly be the case if the elevation were very large.

Elliptical bony elevations of the bridge without widening of the base are removed by sawing through the side of the nose and septum from both nostrils, and fracturing the portion left sufficiently to prevent a flat appearance on top. In

case the base is too wide for this procedure alone, the saw may again be introduced on either side of the base and the fracture line controlled. This is not an easy procedure and had best be practiced on a cadaver before an attempt is made on the living. The saw used is a bayonet-shaped one devised by Josephs.

In most of these hump noses the septal cartilage extends beyond the alae nasi and may be shortened by removing an angular piece submucously and drawing up the columella by sutures.

Cohen describes a method of reducing the hump noses, in which he does not remove the portion of bridge originally sawed through; this is simply subluxed into the nose and forms a new bridge. This method appears feasible but has not been tried by myself.

Collapse of the alae nasi are improved by implants of cartilage from the septum to hold them apart and bulging alae are corrected by removing the alar cartilages.

In hypertrophy of the end of the nose, cauliflower nose, Lesser of Berlin shaved off the redundant portion by means of a sharp thin knife, taking off as large masses as was necessary to produce a normal appearance. The new skin was produced from the epithelium of the glands and follicles, and in a few weeks was indistinguishable from that of the rest of the nose. Chipman recommends after the operation the application of resorcin paste to stimulate epidermization.

Josephs in order to shorten a long nose removes a V-shaped piece of the septal cartilage together with its soft parts and after raising the skin over the nose removes a triangular piece of the triangular cartilage by means of a curved scissors.

I have devised an operation which I believe does just as well and which is more simple. I remove the lower portion of the septum by submucous dissection and then trim off enough of the soft part of the incision to accomplish the shortening. Through two incisions on the alae nasi I now dissect the lower portion of the apical cartilages away and complete the operation by sewing the openings in the septum tightly together.

There is a tendency to a broadening of the tip through this operation, but it has not been objectionable. Josephs' removal of a longitudinal strip near the top of the nose would correct this if thought advisable. He does this by raising the skin and then by means of a biting forcep introduced into the nose, and well up under the skin, removes a longitudinal strip near the center, allowing the alae to overlap the median portion.

## THE MODERN TREATMENT OF SYPHILIS OF THE CENTRAL NERVOUS SYSTEM.\*

By H. G. MEHRTENS, M.D., San Francisco.  
From the Neurological Clinic of Stanford University  
Medical School.

It is only in the last ten years that the treatment of syphilis of the central nervous system has differed materially from that employed for visceral lues. Even after it became known that drugs seldom penetrated the choroid, the intravenous

\* A preliminary report of investigation conducted with the aid of the Interdepartmental Social Hygiene Board.



and intramuscular channels continued to be the main reliance. With these methods excellent results were obtained in some cases, while other cases were absolutely resistant.

With the introduction of the Swift-Ellis and other intradural methods, some of the cases intractable to other forms of therapy now cleared up clinically and serologically. Encouraged by these results, some men felt that every case of proven syphilis of the central nervous system should have the benefit of the intra-dural treatment from the start. Other clinicians still insisted that having obtained certain indisputably good results by the older methods, the newer ones were entirely superfluous. The unfortunate result followed that clinicians adopted one view or the other, and only too often treated all cases of cerebro-spinal lues by the same method, individual requirements of the case being entirely lost sight of.

Before attempting to decide the indications for the various forms of treatment, it would be wise to review our knowledge of the ability of a drug to penetrate the choreoid.

Nearly all investigators held that the choreoid was a complete barrier to the passage of drugs from blood stream to the spinal fluid. As early as 1902 Leri noted the presence of iodide in the spinal fluid of patients suffering with meningitis, who previously had received iodide by mouth. These observations are now thoroughly explained by the work of Flexner and Amos in their work on poliomyelitis; they showed that anti-bodies and even the virus of disease might be drawn from the blood serum to the spinal fluid by the introduction of certain irritants into the sub-arachnoid space. Apparently the irritation, no matter of what nature, whether the individual's own serum, true inflammation, or even, in a lesser degree, lumbar puncture, all tend to lower the barrier between blood and spinal fluid. In 1918 I reported to this society that sodium iodide, which normally cannot be caused to pass the choreoid, even by intravenous injection of two hundred grains, can readily be made to do so following a preliminary injection of blood serum.

Reiter and Solomon found that salvarsan injected intravenously appeared in the spinal fluid in 30% of cases.

This result tallied fairly well with the results we have observed clinically. About 40% of our cases of cerebrospinal syphilis improved markedly, subjectively, serologically, and in the increased capacity for work, under intravenous and intramuscular treatment. It therefore seemed to us that permeability of the choreoid to anti-luetic drugs occurred naturally in certain individuals (about 40%), and for these cases the intravenous and intramuscular treatments were quite satisfactory. The arsphenamine we give in courses of six to twelve injections of .6 grams each week—only occasionally at five-day intervals. During this time we combine the intravenous with the intramuscular mercury injections and iodide by mouth. After such a course we wait two or three weeks, giving tonics, forced feedings, hydrotherapy and care of the kidneys. We then repeat

another such course. However, as frequently occurs, the progress by this method is not sufficient to justify continuing. Occasionally, even before the intravenous-intramuscular method has been given a fair trial, the distressing clinical symptoms, such as unbearable headaches, forces us to turn to intra-spinous therapy.

The results obtained from intra-spinous treatments have been variously explained. Swift believed that the salvarsan contained in the blood serum injected into the sub-arachnoid space was the potent factor. Critics have insisted that the amount of salvarsan thus injected was entirely too small to produce therapeutic results.

Ogilvie and Byrnes would still further increase the spirochetacidal substance by reinforcing the blood serum with arsenic or mercury. The explanation of Flexner and Amos, referred to above, in which the permeability of the choreoid is the essential factor, seems to us to explain the results obtained better than any other. It makes clear not only how arsenic could penetrate, but other drugs and anti-bodies perhaps more important than either.

In order to obtain exact information on this subject we irritated the meninges of one hundred patients with their own blood serum. After an interval of six hours .6 grams of arsphenamine was given intravenously. The amount of arsenic in the spinal fluid was estimated. The results show that arsphenamine given intravenously penetrates the meninges in 40% of cases. Complete drainage of the spinal fluid did not increase the number of penetrations. Preliminary irritation of the meninges caused intravenous arsphenamine to penetrate in 90% of cases and in three times as strong a concentration.

On the basis of these results we have applied this treatment to one hundred and fifty cases of syphilis of the central nervous system. The results, in brief, are slightly more satisfactory than in Swift-Ellis' or Brynes' treatments in the amelioration of clinical symptoms clearing up of the serological findings and freedom from relapses or complications. However, again, I would emphasize that the treatments should only be made in the sixty per cent. of cases in which the membranes are impermeable, and even in these cases there may be certain contra-indications and limitations due to permanent destruction of tissue.

Clinically, drainage of the spinal fluid before or after intravenous arsphenamine did not, in our experience, compare with the methods described above, or with the Swift-Ellis treatments. Applied to every case of lues of the nervous system, it seemed effective in about 50% of cases, which is little better than can be accomplished by the intravenous-intramuscular treatment alone. Symptoms referable to increased cerebro-spinal fluid pressure are improved by drainage. Still even drainage does cause some meningeal irritation, as well as some vaso-motor dilation, as indicated by the pleo-cytosis of ten cells following the puncture. On this basis we can account for some therapeutic results, although less in quantity than by other methods. This method is indicated when pressure symptoms are evident and

when the facilities for intra-spinal treatments are lacking.

Everyone working with cerebro-spinal syphilis has noted cases which as results of previous treatments, or naturally fine veins, present an impossible subject for further intravenous treatments. The rectal administration of arsphenamine has been used clinically for some time. The dose is relatively small and while traces of arsenic were found in the blood and urine, a constitutional effect was not achieved. By gradually increasing the dose we are now using .4 grams of neo-arsphenamine in the thoroughly irrigated rectum. We have traced it through the blood and into the spinal fluid when the meninges were irritated. The usefulness of this method are obvious, and I hope to report a type of case in which this is the treatment of choice even with intact veins.

The clinical results of 1500 treatments for syphilis of the central nervous system, given in the last three years in the neurological service of Stanford University Medical School has brought out the following facts:

To get the maximum results, each case must be treated according to individual requirements—there can be no rigid routine treatment.

There is no greater danger in treating syphilis of the central nervous system than there is in treating visceral lues when a proper technique is developed.

Cerebro-spinal syphilis (meningeal type) was arrested in 80% of cases, intramuscular and intravenous therapy were sufficient in about 40%—of the remainder 35% were benefited by intraspinal therapy, and 15% improved somewhat but were not arrested. About 5% of cases diagnosed cerebro-spinal lues developed parietic symptoms. Headaches cleared up in 90% of instances—generally after one or two intra-spinal treatments.

Tabes—early cases—nearly all did well clinically. Some lightning pains recurred from time to time.

Late tabes showed marked improvement in about 60%, but there was no evidence to show returning function of reflexes—pupillary reaction or Romberg sign. There was sufficient improvement to send most of this class back to work.

In paresis the results were poor. A few cases went into remissions, but ultimately deteriorated and had to be committed. Several cases so diagnosed cleared up permanently, but this unusual result tended to make us doubt the original diagnosis. It does emphasize the benefit for a doubtful case of paresis.

It may be said in conclusion that our present methods of treating neuro-syphilis are by no means so successful as we would like to make them. Certainly the last word has yet to be said, particularly in the development of the intradural methods. Even so, we can feel that our present methods enable us to arrest cases intractable to the older methods and give us hope that the future will evolve methods which, used in time, will arrest a large majority of cases of neuro-syphilis.

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### A NOTE ON THE QUALITY OF SOME DRUG PREPARATIONS SOLD IN AND AROUND LOS ANGELES

By H. L. WHITE and THOMAS WATSON.

Department of Chemistry, College of Physicians and Surgeons, Medical Department of the University of Southern California.

While giving instruction in volumetric analysis to the first year class of students in the College of Physicians and Surgeons, it was decided to extend the work to include a limited survey of the quality of four common drug preparations which are ordinarily prepared by each druggist and not purchased at some wholesale house. The preparations selected were lime water, diluted hydrochloric acid, tincture of iodine and Fowler's solution. The comparative non-volatility of these preparations and the ease with which they could be assayed had much to do with their selection.

The students purchased samples at any drug store that was convenient, but a more careful study was made of the output of drug stores in several blocks of two principal business streets and two business-residence streets of Los Angeles. Several "chain" stores were included in this survey. In addition several stores in Long Beach were visited and a few samples were obtained from other nearby towns.

The results of the assays are shown in the following tables:

#### LIME WATER

No. of Samples Assayed	Standard		Below Standard	
	No.	Per cent.	No.	Per cent.
30	18	60	12	40

The U. S. P. requirement for lime water is a content of not less than 0.14% calcium hydroxide at 25° C. The poorest sample assayed contained only 0.009% calcium hydroxide; two samples contained only 0.03% and four samples from 0.06% to 0.08%. Even stores on a principal business street sold lime water of the poor quality shown above.

#### DILUTED HYDROCHLORIC ACID

No. Samples Assayed	Standard		Above Standard		Below Standard	
	No.	Per ct.	No.	Per ct.	No.	Per ct.
23	4	20	12	52	7	30

The U. S. P. requirement for diluted hydrochloric acid is a content of not less than 9.5%, nor more than 10.5% hydrochloric acid. The strength of acid in the samples assayed varied from 2.77% to 14.10%. It so happens that both the sample lowest in acid and the one highest in acid were purchased at stores located on a principal business street.

#### TINCTURE IODINE (TOTAL IODINE)

No. Samples Assayed	Standard		Above Standard		Below Standard	
	No.	Per ct.	No.	Per ct.	No.	Per ct.
27	13	48	5	19	9	33

The U. S. P. requirement for total iodine in the tincture is a content of not less than 6.5 gm., nor more than 7.5 gm. of iodine in 100 cc. In



the samples assayed the iodine content ranged from 3.24 gm. to 9.8 gm. per 100 cc. Several stores operating under the same firm name sold a tincture that varied widely in its iodine content.

#### FOWLER'S SOLUTION

No. Samples Assayed	Standard		Above Standard		Below Standard	
	No.	Per ct.	No.	Per ct.	No.	Per ct.
28	14	50	1	4	13	46

The U. S. P. requirement is a solution containing potassium arsenite, corresponding in amount to not less than 0.975%, and not more than 1.025% arsenic trioxid. In the samples assayed the content varied from 0.09% to 1.10%.

We are indebted to P. F. Haber, P. C. Lawyer and John Rogers for their help in making the survey and assaying many of the samples.

Los Angeles.

## State Society

### PROGRAM NOTICE FIFTIETH ANNUAL SESSION MEDICAL SOCIETY, STATE OF CALIFORNIA CORONADO, MAY 11, 12, 13, 1921 NOTICE TO APPLICANTS FOR PLACE ON PROGRAM

Time Limit, December 31, 1920

Authors who plan to present papers at the coming meeting should bear in mind that last year papers on timely subjects and of more than excellent merit had to be refused because they had not been presented before the time limit expired.

A limit was placed on programs for past sessions because of the great number of papers presented to the Program Committee each year, many more applications being received than the time allotted would permit.

All applications are to be sent to the State Secretary's office with the following data:

1. Author's name and address.
2. Complete title of paper.
3. Abstract covering all the essential points to be discussed.
4. Information as to what materials will be required for presentation of paper.

### RULES GOVERNING READING OF PAPERS AND DISCUSSIONS AT STATE SOCIETY MEETING

The following rules have been adopted by the Committee on Scientific Program:

#### Rules for Authors

1. Time allotted for each paper is fifteen minutes. The only exception to this rule will be the latitude allowed visitors from other States who come as guests of the Society.
2. No motion from the floor to extend the time of the author will be considered by the chairman of any section.
3. Each author will be allowed five minutes for closing the discussion of his paper.
4. Each author must prepare an extra copy of his paper and present the same to the officer presiding over his section before he will be eligible to read his paper.
5. Absolutely no paper may be "read by title." By consulting the program, which will appear in the Journal in due time, as well as the special program issued at the State meeting, each author can learn definitely when his paper is due to be read.
6. Failure on the part of an author to appear and read his paper automatically precludes the acceptance of future papers by such author for a period of two years.

#### Rules for Those Taking Part in Discussions

1. Openers are limited to five minutes.

2. Subsequent speakers are limited to three minutes.

3. The privilege of a second three minutes will not be granted to any one.

At the one hundredth and nineteenth meeting of the Council the functions of the Program Committee and the officers of the various sections of the program were defined as follows:

1. The section officers will have charge of assembling the program for their respective sections.

2. The Program Committee will be responsible for the assembling of the program for the general session.

In addition, as heretofore, the Program Committee will visit and finally arrange the entire program in conjunction with the officers of the various sections of the program.

3. All applications for places on the program should be forwarded to the State office for proper distribution to the various section chairmen and secretaries.

It will be noted that a new section (a General Section) has been created by the Council. This section will be a meeting where topics of interest to the profession at large can be discussed. This part of the program will be held at a time when the various sections are not convened, so that every one may be given an opportunity to be present. There will be two sessions, and they will be held on the first day of the meeting. The morning session will commence at 9 o'clock and continue at 11:30 o'clock, when the President's address, which has always been a part of the Tuesday morning's program, will be given. Everything else heretofore appearing on the program of the first morning will be dispensed with.

The second session will be held in the afternoon from 2 to 5 o'clock.

## County Societies

### CONTRA COSTA

The regular monthly meeting of the society was called to order by President J. M. O'Malley at Richmond, September 25, 1920.

On account of a request from some of the members for a different meeting night, it was unanimously voted to hold the meeting the last Wednesday of each month.

Following a discussion regarding the treatment of cases in the County Hospital of individuals who were able financially to pay for necessary care, it was moved by Dr. U. S. Abbott and seconded by Dr. Fraser that a committee of two be appointed to confer with the proper authorities with the object of having some assurance furnished that applicants to the hospital are entitled to such care and treatment before they shall be admitted.

Dr. J. T. Breneman of El Cerrito was proposed for membership.

Dr. Dudley Smith had been requested to present to the society the plans for campaigning against the four measures affecting the medical profession next November. Very interesting and valuable information was imparted and this society expressed itself eager and ready to co-operate with the league in its fight.

The paper of the evening was read by Dr. A. B. Spalding of San Francisco on "The Importance of the Parametrium," and the speaker emphasized complaints in the pelvis and lower abdomen variously diagnosed for the relief of which all kinds of operations have been done, but which he believes to be due in many cases to varicosities of veins in the parametrium. His operation for this condition was very prettily explained by lantern slides.

After adjournment a luncheon was served.

CLYDE T. WETMORE, Secretary.

### FRESNO COUNTY

Fresno County Medical Society met in joint session with the Fresno County Bar Association, October 5, in the University Club rooms.

All business of the Medical Society having been attended to by its Board of Governors, the entire meeting was devoted to a discussion of "Law and Its Relation to Medicine."

The speaker of the evening, Professor A. M. Kidd of the Law Department of the University of California, presented the subject in a most interesting manner both from a legal and medical viewpoint. Active interest was shown in Professor Kidd's suggestion as to a move looking toward amelioration of existing conditions surrounding the handling of medico-legal cases.

The function of the medical expert was clarified by Professor Kidd when it was suggested that he should confer with the medical men of the opposition and then from the facts presented make a composite picture of the mental infirmity that could be grasped by the jury. This would do away with much quibbling and harsh feeling between lawyers and doctors.

The local Probation Officer, Mr. Sessions, opened the discussion of the evening with a letter from Judge Reese of Department 8, Juvenile Department, Los Angeles, Calif. The Judge is an ardent believer in modern, humane, scientific protection of the unfortunate mental delinquent. Mr. Sessions added an earnest plea to law and medicine for progressive and early relief of our barbarous present-day methods of handling these cases. Mr. Sessions also proposed the establishment of a psychopathic ward for Fresno, where proper care and study could be carried on.

Dr. Kjaerbye introduced a motion to the effect that a committee of three be appointed from each of the two societies to meet and formulate a plan looking toward the relief of our local problem of caring for the mental delinquent. This motion was carried.

President Hayhurst of the Bar Association requested an early meeting of the two bodies to consider the plans presented by the committee.

There being no further business, the meeting adjourned.

### Fresno County Medical Society

Sunday afternoon, October 10th, there was a called meeting of the Fresno County Medical Society in the University Club rooms to hear Dr. Dudley Smith of Oakland present the plans for the campaign regarding medical legislation.

Dr. Smith stated that Fresno had been lukewarm in regard to The League for the Conservation of Public Health, but from the reception Dr. Smith received and the enthusiasm shown it is thought that Dr. Smith will carry back to Oakland a different opinion of the valley men.

Dr. Smith was accompanied to Visalia by a number of the local doctors to attend his meeting there.

All Dr. Smith's suggestions have been adopted and an active campaign has been started in Fresno.

### LOS ANGELES COUNTY County Medical Picnic.

The Council arranged a basket picnic, which was held at Sunland on the afternoon and evening of Saturday, September 11th.

The day was auspicious and the place was a beautiful grove of live-oaks hundreds of years old. The wide-spreading gnarled branches, intertwining with one another, formed a bower not surpassed by the fantastic imagery of a master-artist and, in truth, but few have had the privilege to have seen anywhere else an arbor so charming. It is a county park called Monte Vista, which suggests the hills and mountains round about.

Dr. William Duffield, the chairman of the arrangement committee, welcomed everyone in his

cheerful way and made them feel glad they came.

Dr. J. Lee Hagadorn, chairman of the entertainment committee, in his inimitable drollery, entertained and also spoke on the serious problems confronting the profession.

Then was dancing, singing, playing and speaking. John S. McGroarty of the "green Verdugo hills" extended a welcome from his neighbors of these hospitable hills to the members of the society.

Dr. W. R. Melony, member of the California State Board of Medical Examiners, spoke effectively on the impending situation.

Attorney Castlelaw spoke on the legal aspect of the problem.

Dr. C. L. Sexton had charge of the barbecue. Two steers were roasted under the direction of Jose Romero in the old pioneer style of our beloved California. Coffee was served. There was no need of the box lunches for the luscious viands prepared in the half-forgotten primitive way so near to earth and man were plentiful and preferred to anything else.

Dr. J. H. Wolfe of the Lederle Laboratory was instrumental in getting five cases of Sierra Club ginger ale (?) from the company.

Mr. L. F. Duncan of the Little Lake Creamery donated the cream and butter for 500 people, due to the efforts of Dr. Sexton.

Dr. Duffield spoke last, but began by saying that the main object was fellowship and fraternity and to become better acquainted with our folks and friends. He only referred to the problem, the serious thing, so as not to mar the pleasure of the day, and began to distribute the printed matter that was to familiarize us with the approaching storm, and although the sun was setting and the photographer would no longer be denied his needs, every member understood and is prepared to wage the war in defense of our dear ones at home and for the good of the people we serve.

### Los Angeles County Medical Association Smoker

At the Chamber of Commerce, Monday evening, September 20th, some of the delegates of the National Convention of the American Public Health Association, which met last week in San Francisco, were entertained.

The president of the Chamber of Commerce, Mr. Maynard McFie, welcomed the guests, saying that the Los Angeles Chamber of Commerce has 6700 members and is the largest in the country next to that of Chicago; that it represents industrial and commercial business. In 1918 it championed the citrus industry, then the harbor, foreign trade for raw material from South America and the Orient; that Los Angeles county was the first in the United States issuing bonds for good roads. The chamber has stood for education, the university, sanitation and public health. California has always been known as an extremely healthy place. Mr. McFie then introduced Dr. Julius Koebig as the chairman for the evening.

Dr. Julius Koebig expressed his regrets that the president had not shown up. In speaking of the good work the City Council has done, he called upon Councilman Wheeler.

Mr. Wheeler, as chairman of the Public Works Committee of the Council, spoke about the city's problems of garbage collection and the disposal of sewage. Chino, he said, is today largely a desert for lack of reforestation, and that Spain's forests and fleets disappeared for lack of timber to build ships. The engineers of Europe stand aghast in the disposal and utilization of sewage. Our bonds for that purpose were voted down. We must use sewage to advantage.

Mr. Paul Hanson, consulting sanitary engineer, garbage disposal, of Chicago, expressed appreciation on behalf of the engineers and spoke of the pleasure of seeing the remarkable engineering work in this city; the harbor roads, sewage, garbage reduction works, and water works. He said that the engineers are usually lost sight of in public



health work. Garbage collection and disposal really means city cleaning. Ashes, rubbish, etc., all must be handled together, garbage being simply one element. City cleaning, from the engineers' point of view, is most complex and in a large community is subject to much criticism. There are three phases all interrelated. Most people think that disposal of waste is the only problem. First, there is the handling of wastes properly to separate them and put them in their respective places. Second, is collection, closely correlated to the men on the wagons who must be intelligent. The proper size of the wagons, the time it takes to convey the material to the dumping place are important subjects.

Incineration appeals to the esthetic sense. Reduction is for the purpose of reclaiming fertilizer grease for feeding of hogs, although it has an odor. Municipalities must consider all this. Dumping is proper when done in the right way, which must be studied and worked out according to local conditions.

Dr. Koebig, the chairman, said we are living here in a semi-arid place, without streams and lakes. Experience has taught that sewage must first be purified. He introduced Dr. Theodore D. Lafreniere, sanitary engineer, Board of Health of the Province of Quebec.

Dr. Lafreniere spoke on the "Sanitary Conditions in Canada," saying that a Federal Board of Health was recently formed in Canada. Generally speaking, these boards are all good, but that he knew more about conditions in Quebec. He expressed his surprise to hear that there was opposition to vaccination. In Canada they have compulsory vaccination, so that every child when admitted to school must show to have been properly vaccinated. The death rate of tuberculosis was to be reduced by educational work. Birth rate and high mortality were studied. For venereal diseases \$130,000 per year was allotted and dispensaries and laboratories have been established. The law provides that every male is examined and must be cured before released.

The sewage problem in Canada is not so difficult, because of the big rivers, which are used for dilution of the sewage. The municipalities below are safe because of the big volume of water for dilution. Eighty-six per cent. of the population uses river water which has undergone treatment. Fourteen per cent. use river water without treatment. The municipality must find out whether it can afford it. The province issued six per cent. bonds and they were sold above par. There was a sinking fund of one per cent. Money can be lent at the rate of three and one-half per cent. for forty years. Water purification work is not sufficient. People get infected in smaller towns and contaminate those in larger cities. They endeavor to interest the Government. Co-operation is necessary. The river water is used to dispose sewage more economically.

Dr. McDonald of Florida thought we do things out here very big and that the problems of Florida are different. Diarrhoeal diseases give the greatest death rate; the water and the fly-borne diseases. There are the two distinct races, forty per cent. colored. The health department must reach the whole population. Public health begins at home by the nurses who report cases and tell how to prevent illness and contamination and how to feed children. Twenty years ago twenty-eight out of every thousand people died in Jacksonville. The colored cities have a higher death rate, 225 per 100,000 tubercular deaths; last year 130 per 100,000, which is less than the rate for the United States as a whole.

Dr. George Clemens Ruhland, Commissioner of Health, Milwaukee, spoke on Water Works and Sewage Disposal. He said that in 1870 the water in Milwaukee was obtained from private wells and

the separate house which called forth typhoid. The city is located at the lake and its water supply caused typhoid to fall to 50 per cent. in two years. The sewage was emptied into the river and typhoid returned from drinking the lake water. Chlorine was then used to disinfect, but in the spring of 1917 the public did not like the doping, so that the water department shut off the chlorine. There was much rain and in ten hours 50,000 cases of acute diarrhea. There were 500 cases of typhoid during the past six years. Intercepting sewer systems then collected all sewage in a plant using the new activated method, the water being agitated by air—i. e., oxygenated. This process removes 90 per cent. of odors. Sludge collecting can be reduced by the activating method. The sediment is rich in nitrogen and proved a good fertilizer, selling for \$15 to \$20 per ton. It is an impalpable powder. The affluent will be sterile and there will be a filtration plant for water purification. Ozone cannot be depended on and is an expensive method, but filtrations with chlorination will make the water safe. The odor in 1917 was not due to chlorine. Below the city crude carbolic acid was manufactured at the rate of 120 tons in twenty-four hours. Tons of it went into the lake. It was shown that this and the refuse from coal tar gave the odor thought to have been due to chlorination. Chlorine can be driven off by heat. Dr. Ruhland remarked that the water supply here is fine, but the sewage disposal is an important problem for Los Angeles.

Dr. Leo K. Frankel, ex-President A. F. H. A., New York, on the Purposes and Aims of the A. F. H. A., said that the child shall live a hundred years. Life can be extended and prolonged. The day may come when we shall be no longer required to report child mortality but when the child shall reach a hundred years. The high mortality of tuberculosis occurs among the colored. Sanitation and hygiene produced the change in the last fifty years. The time will come when communicable diseases shall be eradicated. With 2000 cases of smallpox in 1919, we have not reached the summit. The human side of the problem was dwelt upon in garbage and disposal. Dr. Frankel urged that there should be no difference in service between citizens of Wilshire district and the worst localities, nor between sex, color, age, etc., whether living in crowded centers, congested quarters or living in ignorance of the ordinary rules of health. All should be taught what it means to carry out the rules of the health department. The human being should be considered just as valuable as the hog. There should be as much money spent for diseases of man as is spent for hog cholera.

Dr. Charles Hastings, the medical health officer of Toronto, entertained in a happy vein. In New York physical examination of people in the prime of life showed that they were suffering from some physical ailment due often to the strenuous life, the rush for the almighty dollar. How many persons have had an examination in the last five years?

Dr. Luther Powers and Dr. Wm. Duffield announced programs of entertainment for the following day.

**Sept. 21, 1920, 8 P. M. Special Meeting of the Los Angeles County Medical Association in the Auditorium of the Normal Hill Center.**

Dr. Rae Smith, the president, opened the meeting and invited Dr. Hugh S. Cummings, Surgeon-General of the U. S. Public Health Service, to speak.

Dr. Cummings said that there was no intention of creating an overwhelming federal authority over the state. Some functions belong to the state and municipalities and others to the federal government, such as control, physical and mental; the ports whence immigration would come from, and as a rule all the great health problems. When

control is lessened terrible health conditions result. There are many desirous of coming to our country. One of our safeguards was the German guard against Russian immigration. Every port on the Mediterranean has bubonic plague. There is trouble about reporting in time. We have to depend on ourselves to guard health. The most important is the co-operation of states in health matters, mental hygiene and children's diseases. A great problem was in connection with the war, the sick and wounded. It was thought Congress would take care of the men, but the Public Health Service got charge. There was overcrowding and a large number of ex-service men had to be treated to restore them to full citizenship. The ablest men after the war returned to private practice. It is hard to get the proper doctors. There is co-operation with the Department of Agriculture and the canning industry. The officers will tell of the details. Some of Los Angeles's problems are thought to infringe on personal liberty. We owe a greater duty to our country than to ourselves and you have no right to get sick even if you want to.

Dr. Geo. W. McCoy, chief of the laboratory department, U. S. Public Health Service, claimed to be a Californian, as he was stationed here some years ago.

In the treatment of tuberculosis, the government lacked the funds, but now there is available \$50,000 a year. A staff for scientific investigators is being assembled. First a chemico-therapeutic agent must be found. Other subjects were spirochetal infection, typhus fever and the plague. Los Angeles had a case of plague ten or twelve years ago, developed from a ground squirrel. The city council said it must not be made public. The control of biological products opened a big field. A few years ago they were in chaotic condition. Now the U. S. Public Health Service has control of 99 per cent. of all preparations made. There are standards of toxins. We knew that salvarsan would be cut off with the opening of the war, but before the time it was needed we had men testing and manufacturing it.

Dr. Wm. Duffield moved that Dr. Luther M. Powers and Dr. McArthur be given a vote of thanks for entertaining the visiting sanitary engineers. The motion was unanimously carried.

#### PERSONALS

##### L. A. Doctors Who Went to San Francisco

There were 100 Los Angeles doctors in the delegation to the forty-ninth annual meeting of the American Public Health Association at San Francisco. This party included Dr. L. M. Powers, city health officer; Dr. W. T. McArthur, Dr. Walter Brem, Dr. Wm. Duffield and Dr. Irving Bancroft.

Dr. Milbank Johnson was married to Miss Isabel Simeral, Wednesday, Sept. 8. The wedding took place at the home of the bride's sister, Mrs. Allen Winter, Mariposa street, Altadena. The bride is a daughter of Mr. and Mrs. George H. Simeral of Bloomington, Ill. For the last four years she served as executive secretary of the Women's City Club of Cleveland, Ohio. Dr. and Mrs. Johnson will travel extensively in the East and will make their home here later.

Dr. Walter V. Brem at a meeting of the Men's City Club debated with Reynold E. Blight on the subject of compulsory vaccination. A lively discussion followed. Dr. Brem said: "We are not attacking any religious belief, but we do object to digging up the hatchet that has been buried for years between science and religion."

Dr. Frank K. Kidder of Los Angeles married Jessie M. Waltermath of this city, Sept. 1st.

##### Returned from Mayo Clinic

Dr. Harry G. Marxmiller has returned from a three-months' postgraduate course at the Mayo Clinic in Rochester.

#### HOSPITALS

##### University Hospital

This hospital will be located on East Washington street, between Maple avenue and Trinity street. It is to be built in the form of a letter H according to plans by Architect Herbert C. Howard. The six stories of structural steel frame will cost \$600,000 and accommodate 250 patients, beside operating rooms, kitchens, baths and administration offices.

##### Hollywood Hospital

The hospital will be erected at Highland and Cahuenga avenues at a cost of \$500,000.

Edward G. Hawkins and Benjamin D. Raines organized the company and the following medical advisory board was appointed:

Dr. Edwin O. Palmer, chairman, general medicine; Dr. F. K. Collins, secretary, surgeon; Dr. S. M. Atkins, general medicine; Dr. W. W. Richardson, surgeon; Dr. W. C. Duncan, internal medicine; Dr. Fred J. Old, ear, nose and throat; Dr. Albert Soiland, X-ray and radio; Dr. Paul K. Sellow, eye; Dr. C. Toland, surgeon; Dr. Charles Phillips, surgeon; Dr. R. L. Cunningham, internal medicine; Dr. W. E. Deering, obstetrics; Dr. Elliott Alden, surgeon; Dr. Dudley Fulton, internal medicine; Dr. L. C. Frost, pathology.

Dr. Sharon M. Atkins originated the plan. It is to be on a five-acre site and accommodate 115 patients.

##### Pasadena Hospital

Plans for the hospital have been drawn by Architect Myron Hunt. Dr. C. D. Lockwood presided at a meeting of Pasadena physicians to discuss the structure.

##### Receiving Hospital

The City Council plans to have the Receiving Hospital moved from First and Hill streets to Normal Hill Center. J. J. Backus, city building inspector, advised the council that the old Normal School building could be remodeled at a reasonable cost for that purpose.

##### Psychopathic Laboratory

The Board of Supervisors ordered the organization of a psychopathic laboratory for the examination of adult criminals and county charity charges. The matter had been presented by the Psychopathic Society of Los Angeles and a number of superior judges. It is believed that it will save many thousands of dollars hitherto expended in judicial proceedings.

##### Segregation Homes for the Aged

The State Board of Charities and Corrections urged segregation of such institutions into two classes. There are many old folks' homes receiving patients suffering from senile dementia and other psychopathic cases. A commission to which such institutions are amenable should make frequent inspections.

##### Army Hospital

Camp Kearny was chosen Sept. 23 by Hugh S. Cummings, Surgeon-General of the U. S. Public Health Service, as the best site for sick and wounded soldiers and former service men. He will urge Congress to appropriate \$100,000 for that purpose.

##### \$200,000 Laboratory

A new physics laboratory building of the California Institute of Technology is to be started early in October. Dr. Norman Bridge of Los Angeles has given \$200,000 for this structure and it will be named after him. Dr. R. A. Milliken, director of physical research at the institute, and the faculty of the University of Chicago have approved the plans.

#### MISCELLANEOUS

##### New Outfall Sewer

Major John A. Griffin, city engineer, started the educational campaign for bonds for a new outfall sewer needed to meet the city's rapid growth. A bond issue of approximately \$12,200,000 is to be



voted on next spring. He states that the amount of sewage discharged into the present outfall sewer will reach the capacity of its conduit in the next three or four years. The new one proposed will require that time for building. The new sewer is to interrupt the flow in the western part of the city at Rodeo road and Arlington avenue to Adams and Washington streets, then to Baldwin hills and to near Inglewood. Intercepting sewers for East Los Angeles and branch sewers are planned to meet all requirements for a population of 3,000,000 in 1950, if Los Angeles grows at the rate of the last ten years.

#### ORANGE COUNTY

The October meeting of the Orange County Medical Society was held at the chapel of the County Hospital. Dr. Harlan Shoemaker of Los Angeles delighted the members present by an address on the "Surgery of the Abdomen," relating many personal experiences.

Dr. P. T. Magan of Los Angeles spoke of the "Quack Quartet" and distributed some interesting literature on the three initiative and one referendum measures which affect the public health. A committee of five members was appointed to look after Orange county's duty in protecting the public from having its public health protection destroyed in November at the polls.

Several members who have been away during the summer have returned to their practices, after having spent more or less time in post-graduate study.

Dr. Burlew will describe at the next meeting a recent trip to Eastern clinics.

Drs. Johnston and Wickett have purchased the Fullerton Hospital.

#### SACRAMENTO COUNTY

Regular monthly meeting of the Sacramento Society for Medical Improvement was held at the Hotel Sacramento September 21, after two months' vacation.

Dr. N. G. Hale reported a case of double ureter in a woman, age 43 years, who had had pain in the lumbar region for 22 years, with no actual renal colic; urine loaded with pus and phosphates; cystoscopically, bladder showed two openings on the right side,  $\frac{1}{2}$  cm apart; two catheters could be passed to separate kidney pelvis; pyelogram showed right kidney pelvis to consist of two separate parts; the upper pelvis looked superiorly instead of internally; the other had a sharp angle downward and forward; infection was confined to one kidney pelvis. This is not such a rare condition as has previously been thought, but is generally found and diagnosed at autopsy.

Dr. Lindsay reported the case of a man, run over by a Ford, whose only complaint for several months was a pain in the back of the neck and a numbness in the thumb; X-ray disclosed a fracture of the third and sixth cervical vertebrae.

Paper of the evening was by Dr. Gundrum; subject, "The Diagnosis and Treatment of Pyo-Pneumo Thorax," a summary of which follows:

Hippocrates recognized empyema and advised operation for its cure. Celsus, however, did not advise surgical operation of thoracostomy and this fell into disuse for some 1500 years. The greatest difficulty that the ancient physicians had was in diagnosis; there were no means at hand of telling whether the chest contained pus, clear fluid, or consolidation of the lung. The nineteenth century brought a great change through the introduction of the stethoscope by Laennec in 1818, the hypodermic needle by Wood in 1855, and antiseptics by Lister in 1865. Since that time it has been a matter of great simplicity to determine the contents of the pleural cavity before it is opened.

Treatment of this condition is drainage, but the method of drainage must vary with the condition of the patient, the infecting organism and mechanical factors. Open drainage has been the method of choice and has been very successful in the pneumococcus cases which come usually after immunity has been at least partially established. In streptococcus cases where empyema often occurs early in course of the infection, it

is often necessary to use intermittent drainage by aspiration as a method of choice until some immunity has been developed. Tuberculous empyema is usually treated by aspiration. Double empyema occurs in some three or four per cent. of cases and it is practical according to the work of McKenzie to drain both sides at the same time, or better with interval of a day or two between the operations on the two sides.

At this meeting a new staff was selected to serve for the ensuing quarter at the County Hospital: Surgery, Dr. W. K. Lindsay; medicine, Dr. R. M. Bramhall; gynecology, Dr. C. E. Turner; pediatrics, Dr. W. A. Beattie; obstetrics, Dr. C. L. Bittner; nose and throat, Dr. C. B. McKee; genito-urinary, Dr. C. A. Dahl.

#### SAN DIEGO COUNTY

Two enthusiastic meetings of the county society have been held during the past few days; both of these have been devoted to generating energy and enthusiasm for the fall drive for votes preceding the polls of November 2nd. The first of these meetings was addressed by Drs. Walter Brem and T. W. McCarthy of the Los Angeles Society. The second meeting was in the hands of President Kinney of the San Diego County Society, and took the form of a dress rehearsal, coaching local efficiency elements in their work of the next few weeks. It will not be the fault of organized medicine in San Diego county if the "quack quartet" carries here on November 2nd. Every member of the County Society is doing his bit and doing it vigorously.

President Kinney addressed the University Club members at their after-luncheon talk on Friday, October 8th. The members of the County Society are looking forward with pleasant anticipation to the proposed visit to El Centro, November 13th, on which occasion the two societies of San Diego and Imperial counties meet in joint session to discuss the broad subject of "Peptic Ulcer" in its various phases. Dr. Thomas O. Burger is attending the conference of the American College of Surgeons at Montreal, Canada. Dr. B. J. O'Neale and Dr. Joseph F. Grant have recently been extended fellowship in the American College of Surgeons.

#### SAN FRANCISCO

During the month of September, 1920, the following meetings were held:

##### Proceedings of the County Medical Society Tuesday, September 14—General Meeting.

1. Pathology of thyroid disease.....Wm. Ophuls
2. Basal metabolism in thyroid disease.....  
.....Albert Rowe
3. Medical treatment in thyroid disease.....  
.....W. W. Boardman
4. Surgical treatment in thyroid disease.....  
.....W. I. Terry

##### Tuesday, Sept. 28—Eye, Ear, Nose and Throat Section.

1. Demonstration of cases.
2. Industrial eye injuries.....E. F. Glaser
3. Loss of vision in the industrial sense and its relation to compensation..Hans Barkan
4. Compensation of eye injuries..Morton Gibbons
5. Relation of the specialist to the Industrial Accident Commission..Mr. W. J. French,  
President Industrial Accident Commission.

#### ANESTHETISTS' MEETING

The regular monthly meeting of the Northern California Society of Anesthetists was held October 14, 1920, at the County Medical Building, San Francisco. The program was as follows:

- Discussion of shock.....Dr. Henrietta Duggan  
The four Anti-Health Measures.....  
.....Dr. Mary E. Botsford  
Presentation of the recently proposed Universal Anesthetic Record..Dr. Caroline B. Palmer  
Résumé Current Anes. Literature.....  
.....Dr. L. A. Rethwilm

### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held Friday evening, September 10th, at the Hotel Lincoln, Dr. R. T. McGurk presiding in the absence of the president and vice-president. Those present were: Drs. R. T. McGurk, B. J. Powell, N. E. Williamson, J. T. Davison, L. R. Johnson, L. Haight, J. W. Barnes, F. S. Marnell, W. C. Adams, Grace McCoskey, W. T. McNeil, H. C. Peterson, Minerva Goodman, H. J. Bolinger, J. P. Martin, J. E. Nelson, J. D. Dameron, E. A. Arthur and D. R. Powell, Dr. Chapman of Stockton and Dr. R. Peers of Colfax as guests.

A letter was read from the League for the Conservation of Public Health, in which the four anti-public health initiative measures were discussed. Concerning the last communication, Dr. Goodman, representing the Red Cross, stated that that organization was having display space at the County Fair and volunteered to use part of the wall space for any placards that might call the public's attention to the advisability of defeating the anti-public health measures. A committee of three, consisting of Dr. Goodman, Dr. R. T. McGurk and Dr. D. R. Powell, was appointed to co-operate with the Red Cross in making such display against these measures.

There being no further business, the chairman introduced the speaker of the evening, Dr. Robert Peers of Colfax, who spoke on "Artificial Pneumothorax in the Treatment of Pulmonary Tuberculosis." He spoke of his experience at Colfax, where they had used the method only in those cases where the ordinary procedure had failed to give relief, the patient going down hill rapidly. It was used first to produce rest to the affected lung, second, to apply pressure to a bleeding point; third, to remove toxic fluid and replace air to prevent adhesions.

He spoke of the difficulties in the method and some of the technical dangers and the long period of treatment necessary and a great economic loss. He reported the statistics of 112 cases, showing the number improved, and the figures and results more than justified the effort made. There was a very general discussion, after which Dr. Peers courteously answered many questions.

Before adjourning the secretary called the attention of the members of the society to the fact that our first vice-president, Dr. Hudson Smythe, had recently been guilty of matrimony, and it was moved, seconded and carried that the secretary express, on behalf of the society, their felicitations on the happy event. The meeting adjourned at 10:15 to partake of light refreshments and a social hour.

### STANISLAUS COUNTY

Members of the Stanislaus County Medical Society met Friday night, October 8, for their regular monthly meeting at the Hotel Modesto. A fine banquet was served, after which Dr. Harrington B. Graham, professor at Stanford University, delivered an address on "The Effects of Nasal Stenoses," which was thoroughly appreciated by the twenty-two members present.

The society meets on the second Friday of each month and all doctors in Stanislaus county are invited to become members.

## Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Dr. Harvey W. Wiley is a prominent figure in the movement to deprive physicians of the right to prescribe and the druggists to dispense alcoholic liquors. Anything that Dr. Wiley says will receive careful consideration from many millions of thinking people, and any movement he backs is liable to succeed unless there be organized and determined opposition. Dr. Wiley's reasons are not those of the rabid prohibitionist. He would make the change to maintain the good name of physician and pharmacist. He points out that, though a very large majority of all physicians and pharmacists are careful and law abiding, there would always be a certain number who would do anything for the almighty dollar, and already the public is beginning to state that anybody with the money to pay the physician's fee can get a prescription for liquor whether he need it or not. Dr. Wiley would have the right to prescribe relegated to official physicians, either those of the Army, Navy or Public Health Service, or physicians appointed especially for this purpose and prescriptions to be supplied only in a central Federal dispensary. Dr. Wiley does not consider the tremendous inconvenience to which the patient would be put or the great opportunity for graft and political intrigue in such a system. Nor does Dr. Wiley consider the great leverage which acts of this kind would give the arguments of the Christian Scientists, anti-vivisectionists and anti-vaccinationists. If the physician cannot be trusted in a matter of this sort, these people would argue that he cannot be trusted in more important matters involving life or death. Besides such action would probably soon lead to similar action as regards narcotics and the physician would find himself deprived of the right to use drugs which are absolutely necessary. The physician should bear in mind that the crisis may be reached at any time, and he should do his best to prove that the physician is worthy of his trust. The druggist is altogether in the hands of the physician. Unfortunately, there are a certain number of so-called drug stores which are more interested in selling liquor than in selling drugs, and already at least one grocery firm has opened a drug store and openly advertised in the public press, soliciting this business. The physician can soon stop this if he will. The regulations require that the physician must state upon the prescription the name of the druggist who is to fill the prescription. Many physicians have hesitated doing this, notwithstanding the law, for they feel that it appears as though they were trying to force the patient in a particular store. However, the physician can ask the patient where he wishes the prescription filled, and if he wants it filled at a reputable store he can then put that name on the prescription. If he finds that the patient wants it filled at a liquor store masquerading as a drug store, he can call the matter to the attention of the patient and absolutely refuse to send prescription to such a place. If the physician will do this, and if the physician will remember that whether he favors prohibition or not, the Eighteenth Amendment is the supreme law of the land, Dr. Wiley's movement will undoubtedly fail.

However, quite a few physicians and druggists would welcome any change by which they would be taken out of the liquor business. A physician finds it rather unpleasant to refuse the request of an old friend or patient for a whiskey prescription, especially if he likes a cocktail or highball occasionally himself. The reputable druggist finds that the red tape, petty annoyances and responsibility more than make up for the profit he makes on the sale of liquor, and he would welcome the establishment of a Federal dispensary excepting that it would still further interfere with the legitimate use of alcohol in pharmaceutical preparations and would establish a bad precedent.



## Clinical Department

### REPORT OF EXTENSIVE FRACTURE AND DISLOCATION OF 5th AND 6th VERTEBRAE WITH RECOVERY

Wm. K. Lindsay, M. D., Sacramento, Calif.

Mr. E. C., age 34, native of Calif., weight 155 lbs., height 5 feet, 8 inches, robust build.

June 18, 1920 at 9:15 p. m., he stopped his Ford car on a slight hill, stepped out in the dark and opened a gate, the brakes gave way, letting the automobile run forward knocking him down and passing over him, the body sustained the weight of the automobile from the transmission housing resting across his neck.

Mr. C. was stunned but succeeded in picking himself up and walking a distance of three-quarters of a mile to his home, where he arrived much exhausted and went to bed, where he remained for four weeks. He got up and was about the house until Aug. 2, when he came to my office complaining of stiffness of the neck, and numbness of the right thumb, and pain through the shoulders.



Dr. Harold Zimmerman reports, "X-ray examination of the cervical spine shows fracture dislocation of the 5th and 6th cervical vertebrae. The body of the 5th is displaced, completely separated from its spinous process. Small fracture of the body of the 6th. Naturally this gives rather sharp angulation in both the anterior, posterior and lateral projection. Considerable callous formation is seen.

"Shoulder plates show no definite fracture, but slight dislocation of the left acromio clavicular articulation."

After consultation with Dr. Harry Sherman of San Francisco, who concurred in my findings, I advised Mr. C. to return to his home and be very cautious for another six weeks.

Sept. 8th he returned to my office much improved, but still complaining of some numbness of the right thumb, with considerable stiffness of the neck.

The second X-ray reveals: "Examination of this date, shows fracture, dislocation of the 5th cervical vertebrae, as reported before with the fragments in the same position and relation. They seem to be sufficiently immobilized in this position by callous formation."

It is evident that the complete separation of the laminae from the body of the 5th vertebrae sufficiently relieved the angulation of the cord and prevented troma or severing of the cord and fatal termination.

### THE USE OF BENZYL-BENZOATE IN SEASICKNESS

T. H. Glenn, M. D., Los Angeles

The efficiency of benzyl-benzoate in the relief of spasms of the smooth muscle tissues has been amply confirmed. Many of us have seen marked relief follow the administration of this drug in dysmenorrhea, cardiospasm, pylorospasm, pain in gastric ulcer and in certain forms of asthma. Hiccoughs yield to its use and, recently, Macht has reported good results following its use in whooping cough.

The striking results obtained in the above conditions led the writer to suggest the use of benzyl-benzoate in seasickness.

An opportunity to try out this drug in seasickness came when the secretary in our office decided to take a boat trip from Los Angeles to Seattle. At my suggestion, she took some benzyl-benzoate along.

Soon after leaving Los Angeles harbor, she became ill, took ten drops of benzyl-benzoate and received almost instant relief. At night, when she returned to her room, she found the woman in the upper berth violently ill. She was given ten drops of the drug and almost at once the groans and vomiting ceased. The woman was so still during the night that our secretary was afraid that she had killed her and was greatly relieved when she awoke the next morning to find the woman perfectly happy.

A telephone operator desired to go to Catalina for her vacation but feared the trip as she had always been seasick when riding on a steamer. At our suggestion she took benzyl-benzoate along. She became ill soon after leaving the harbor and took ten drops of the drug. Her symptoms disappeared very rapidly and she enjoyed a sea voyage for the first time in her life.

The writer's wife was attacked with seasickness soon after leaving Catalina. She was so ill that it was with difficulty she could swallow ten drops of benzyl-benzoate in water. The effect, however was immediate. The desire to vomit disappeared and she was able to enjoy the remainder of the voyage. Several others, who had been attacked with seasickness on the ship were given ten drops of the drug with instant relief.

While the number of cases in which benzyl-benzoate has been used in seasickness, at the suggestion of the writer has been small, about twenty in all, the result in every case in which it has been used has been so satisfactory, that the writer feels justified in recommending the use of this drug in all cases of seasickness.

In our cases, ten drops of the drug were used, a small dose. One-half to a teaspoonful can be given with safety. As the sea voyage was short in all our cases, we were not able to determine how long the effect of the drug will last. The results in our cases have been uniformly good and warrant a further study of the effects of benzyl-benzoate in seasickness. It may be that in benzyl-benzoate we have a drug that will make many a seasick victim happy.

# CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS

Case No. 11. February 16, 1920. J. M. Male. Italian. Age, 3 years.

**Complaint:** Headache, vomiting, "puffiness" of face and legs, prominence of abdomen.

**Family History:** Father, mother and four brothers and sisters all living and well. No history of miscarriages, of tuberculosis or of kidney disease in the family.

**Past History:** Full term, normal delivery, breast fed for 15 months and did well. Development normal. Has never had a previous illness, and there is no specific history of scarlet fever, colds, throat or other infections. The only significant point is the onset, two weeks before entry, of a crusting, scattered, discrete superficial skin rash (impetigo).

**Present Illness:** The child was well except for the above noted rash until one week before entry. The mother then noted a general "puffy" appearance with definite swelling of the face and extremities. He did not complain and played as usual. Polydipsia was noted at this stage. Three days before entry the child developed headache and vomiting. He was confined to bed and his food, but not his fluids, restricted. There was polyuria, nycturia and the urine was dark colored. The temperature was apparently not elevated.

**Physical Examination:** Well-developed and nourished Italian boy of 3 years, with generalized oedema anasarca, lying quietly in bed, not in distress. The skin shows diffuse scars of a recent impetigo but no other rash or evidence of fading or exfoliating rashes. No cyanosis or jaundice. Eyes negative except for infra-orbital oedema, pupils equal, circular and react to light and distance with no pathological findings in fundi. Ears negative to external and internal examination. Nose negative. Lips normal. Teeth negative. Tongue coated. Tonsils moderately enlarged, not cryptic and showing no exudate. Pharynx entirely negative except for a fine lymphoid hypertrophy. Cervical glands not enlarged. Lungs negative except for reduced expansion at the bases. Heart negative to auscultation, percussion and palpation. Abdomen protuberant, rounded, fluid wave and shifting dullness of a large amount of ascitic fluid present. Palpation yielded no information, due to the presence of fluid. Genitalia, marked oedema of scrotum. Extremities, impetigenous scars diffusely scattered. Generalized rather extreme oedema. Reflexes normal.

## Laboratory Examinations and Course:

Feb. 16, 1920. Throat culture: micrococcus catarrhalis predominates. Von Pirquet slightly positive to human and bovine; Wassermann in blood serum negative.

Blood: Hemoglobin 70%.

R. B. C. 3,680,000.

W. B. C. 20,100.

Differential-polys. 66%; lymphocytes 25%; large monos. 9%.

Feb. 18, 1920. Phenolsulphonephthalein excretion. Total, 2 hours, 18%.

Blood: Urea nitrogen, 46 mgm. per 100 cc.

Non-protein nitrogen, 61.2 mgm. per 100 cc.

Chlorine, 7.05 grams per liter.

Plasma CO<sub>2</sub>-59.5 volume per cent.

Sugar, 0.071%.

The child is on a salt free diet with restricted fluids.

Urine: Acid, albumin cloud, sugar 0, blood +. A few coarsely granular and cellular casts, R. B. C. + + +; pus +.

Feb. 19, 1920. Urine culture, B. coli, staphylococcus albus.

Feb. 19, 1920. Urine culture, B. coli Staphylococcus albus.

L. W. Hill's Specific Gravity Fixation Test gave the following data:

Fixation of specific gravity at a moderately low point with a maximum variation of 4 points.

No polyuric response to meals.

Night urine normal in amount (340 cc.) but of low specific gravity.

Chlorides: Day, 0.65% (2.94 gm.)

Night, 0.87% (2.99 gm.)

24-hour total, 0.75% (5.93 gm.)

Intake, 2.00 gm.

Difference, 3.93 gm.

Therefore a negative balance for salt and water (output 786 cc., intake 745 cc.)

(On account of the presence of blood in the urine the nitrogen determinations were not made.)

Feb. 24, 1920. Phenolsulphonephthalein Excretion:

1st hour .....12%

2nd hour .....15%

Total .....27%

Feb. 26, 1920. Radiographs of kidneys, ureters and bladder entirely negative.

Feb. 29, 1920. Marked improvement in oedema.

Mar. 2, 1920. Phenolsulphonephthalein Excretion:

1st hour .....5%

2nd hour .....40%

Total .....45%

Mar. 3, 1920. Diet to contain 1500 calories, with protein restricted to 10 gm.

Mar. 5, 1920.

Non-protein nitrogen.....33 mgm. per 100 cc.;

Urea nitrogen.....10 mgm. per 100 cc.;

Creatinin .....1.12 mgm. per 100 cc.

Patient steadily improving.

Mar. 10, 1920. Protein in diet increased to 15 gms.

Mar. 18, 1920. Phenolsulphonephthalein Excretion:

1st hour .....30%

2nd hour .....30%

Total .....60%

Mar. 24, 1920. The protein sensitization tests of 17 varieties of proteins, including bacterial, were all negative.

Diet to contain but 10 gm. of protein.

Mar. 31, 1920. Phenolsulphonephthalein Excretion:

1st hour .....34%

2nd hour .....14%

Total .....48%

Apr. 13, 1920. L. W. Hill's Specific Gravity

Fixation Test gave the following data:

"No fixation of specific gravity. Variation

22 points.

Night urine small in amount and of high

specific gravity.

Percentage elimination of salt is the same day and night and a little low, but total salt is excreted. Percentage elimination of nitrogen is low during the day (0.41%), so that for the volume of urine excreted there is a poor excretion at night, the percentage rises to a normal figure (1.46%). There is nitrogen retention apparently due to the poor excretion during the day.

This is a distinct improvement over the findings of Feb. 19th.

Apr. 19, 1920. Child to remain on "Hill Diet."

Apr. 23, 1920. Child on regular diet.

Apr. 29, 1920. Phenolsulphonephthalein Excretion:

1st hour .....50%

2nd hour .....8%

Total .....58%



May 5, 1920. L. W. Hill's Specific Gravity Test gave the following data:

No fixation of specific gravity, maximum variation 12 points.

Night urine small in amount (132 cc.), but of high specific gravity.

Percentage elimination of salt falls at night, but a good average amount of salt is excreted.

Percentage elimination of nitrogen rises during the night.

Nitrogen output is rather low.

Total urine 740 cc. Chloride, 0.7% (5.25 gm.). Nitrogen, 0.58% (4.31 gm.).

Conclusions: Approximately normal function.

May 15, 1920. Discharged in good condition on low protein diet.

Urinalyses during residence showed a steady decrease in the quantity of albumin and in the number of casts and cells.

**Diagnosis:** Nephritis, Acute Infectious (Acute Diffuse), probably streptococcal following impetigo.

**Discussion:** This case report is presented at length because of the demonstration of the value of the functional tests in prognosis and as an aid to intelligent supervision of the nephritides.

The phenolsulphonethalein test is one of the simplest and most valuable, although it is not of its greatest value in acute conditions, for a very low output may be registered (the normal for a child is 70-76% for the 2-hour period), indicating severe damage, but this may have no relation to the ultimate outcome. Acute damage with congestion and cloudy swelling may reduce the phenolsulphonethalein output, as in this case, to 18%, which in a chronic case would indicate either approaching uremia or speedy death, whereas in the acute form no such prognosis need be entertained.

A modified Mosenthal Test as elaborated by Hill gives (in cases without oedema) an index of the permeability and function of the kidney as determined by means of a fixed diet and an estimation of the specific gravity of the urine at 2-hour intervals. Fixation of specific gravity indicates a diseased condition. Normally a fluctuation of many points should be registered. As evidenced at the onset of this case, fixation was marked, and instead of a high specific gravity, which is to be expected in the smaller amount of night urine, there was a low one. This steadily improved during residence until at discharge there was a normal range.

Blood analysis for the determination of the non-protein nitrogen yields the greatest information. Retention in the blood of substances normally excreted by the kidneys indicates kidney damage. The normal non-protein nitrogen in the blood should vary from 25-30 mgm. per 100 cc. and the urea nitrogen from 12-15. In the case reported at the first examination, the non-protein nitrogen was 61.2 mgm. per 100 cc. and the urea nitrogen 46 mgm. per 100 cc., indicating a considerable degree of impairment of function and therefore retention in the blood. At the examination one month later the non-protein nitrogen had been reduced to 33 mgm. per 100 cc. and the urea nitrogen to 10—practically, in other words, to a normal figure. Creatinin being readily eliminated, serves, when it is retained in the blood, as a delicate indication of the extent of kidney damage (1-2 mgm. per 100 cc. of blood is the normal figure). Figures above 3.5 mgm. usually give also a high urea retention, but below 4 mgm. improvement may be expected. Above that figure great damage has been done and the prognosis is correspondingly guarded.

The treatment of acute nephritis in children involves two principles, namely: the reduction of fluid intake during the acute period (it is later to be increased) and the reduction of the protein in-

take to a minimum, thus saving the kidney from over activity during its period of impaired function. The classification of Moschowitz for the nephritides includes, among others, that of glomerulo-nephritis, or nephrosis, which gives the picture of oedema, ascites, etc., in contra-distinction to the arterio-sclerotic form and is essentially a kidney disease of the young. In this particular type, because of the fact that there is an increase in the lipoids and cholesterol bodies and a reduction in the protein, Epstein has had very interesting and satisfactory results by feeding a high protein. This, however, must be further investigated before its value is entirely established.

## State Board of Medical Examiners

### ANNUAL MEETING OF BOARD

Board of Medical Examiners of the State of California held its regular annual meeting at the State Capitol, Sacramento, California, October 18 to 21 inclusive.

The incumbent officers were re-elected for the ensuing year, namely:

P. T. Phillips, M. D., Santa Cruz, President; Harry V. Brown, M. D., Glendale, Vice-President; C. B. Pinkham, M. D., Butler Building, San Francisco, Secretary-Treasurer.

The usual business calendar was completed, and on Tuesday, October 19, legal hearings were held.

Phillip Dymont of Pasadena failed to appear before the Board to show cause why his reciprocity license to practice in California, based on his Georgia certificate, should not be revoked, inasmuch as the Georgia Board revoked his original certificate issued in said state upon a showing that Dymont had hired Dr. L. G. Wright to impersonate Dymont before the Georgia Board in writing the examination preceding the issuance of his certificate. Based upon the evidence submitted, the license heretofore issued to Phillip Dymont to practice medicine and surgery in the State of California was revoked.

Testimony was also heard in the cases of Dr. Mary Turnbull and Dr. Lillie L. Koerber, each having been charged before the Board with alleged abortions, and after hearing the testimony the Board dismissed both cases.

Attorneys Charles Lyon of Los Angeles and Clarence Morris of San Francisco appeared, petitioning the Board to restore the license of Roy S. Lanterman, heretofore revoked on a charge of abortion. Petition for restoration was denied by unanimous vote of the Board.

Frank T. Duncan of San Francisco appeared before the Board, petitioning restoration of his license to practice medicine and surgery, and after due consideration thereof, restoration was denied without prejudice.

The Board reconsidered its former action in revoking the license of George H. Richardson of Los Angeles, dismissing the charges, thus automatically restoring the license heretofore issued George H. Richardson, entitling him to practice medicine and surgery in the State of California.

The license heretofore issued to Dr. E. R. Hoffman, entitling him to practice medicine and surgery in the State of California, was revoked, based upon the record of his conviction by the United States authorities on a charge of violation of the Espionage Act.

The cases against Clarence C. Baker, S. F.; Donald E. Harris, S. F.; C. K. Holsman, L. A.; William H. Lockman, L. A.; Harry Seth Walters, San Luis Obispo, were continued to the February 1921 meeting, to be held in Los Angeles.

Petition for a continuance of the hearing of the charges against Frank Thomas of San Francisco and Holmes F. Troutman of Oakland were granted, inasmuch as each of said individuals has appealed from the judgment of conviction in the Superior Court.

Hearing of the charges against J. G. McMath, D. O., Los Angeles; Harry C. Palmer, D. O., Los Angeles; Gertrude F. Steele, Naturopath, Los Angeles, were continued until the next regular meeting, pending disposition by the criminal courts of Los Angeles.

Forty-two applicants wrote the examination, the majority of whom took the examination for physician and surgeon certificate. Two Japanese wrote the examination in the English language.

Sixty-nine oral reciprocity applications were considered; 34 applicants failed to appear for the oral examination, and of the balance, 35, who appeared, 24 successfully passed and 11 failed.

Two holders of a certificate to practice osteopathy in the State of California took the oral examination for physician and surgeon certificate under Section 12½. One passed and one failed.

The reports of the usual committees were read and filed.

### Historical Sketch of Galen R. Hickok

The persistent search, covering a period of several years, made by the secretary of the Board of Medical Examiners of California, has ended in the discovery of the original Galen R. Hickok at Santa-tanta, Kansas, where, as the president of the Southern Mortgage Company, he is prominent in municipal affairs. He has furnished valuable information in connection with the theft of his diploma and material facts regarding the career of the alleged Thompson, or Zangwell, or Hickok, who has been practicing in California for several years. The Kansas Galen R. Hickok has agreed to come to California to clear the mystery occasioned by two individuals practicing in widely separated geographical locations under the same name, with credentials alleged to be the same. The Kansas Hickok proposes to show that the California Hickok stole the diploma and credentials of the former, assumed his name thereafter, and has been so known throughout the intervening years.

Records disclose the original Galen R. Hickok was born in Missouri on June 30th, 1873, his present age being 47 (\*the affidavit of the alleged spurious Hickok certified that he was born January 1, 1870, making him 50 years of age on January 1, 1920).

The original Galen R. Hickok attended Ottawa University, Ottawa, Kansas, from September 13, 1892, to 1895. In 1897 he registered at the St. Louis College of Physicians and Surgeons as from Winfield, Kansas, and was granted the degree of "Doctor of Medicine" by said institution on April 26, 1899. He reports subsequent registration to practice medicine and surgery in Arkansas, Colorado, Illinois, Iowa, Kansas, Kentucky, Missouri, Nebraska, New Mexico, Oklahoma and Tennessee; that he has not lived in any State west of Kansas, though he has occasionally attended patients in Colorado and New Mexico on special request; that he has at no time ever filed an application for a license to practice in California, Nevada or any other of the mountain or Pacific Coast States, and that any certificate issued by the State Board of any Pacific Coast State in the name of Galen R. Hickok was obtained fraudulently. He further states that in 1902 the diploma issued him by the St. Louis College of Physicians and Surgeons on April 26, 1899, in the name of Galen R. Hickok, together with State Board certificates, etc., were stolen from the rooms he then occupied in the Reynolds Hotel, Ulysses, Kansas, by "this man Zangwell or 'Thompson,' as he was then known," described as then "a little, dark Hebrew," plainly of Continental-Europe extraction" (another communication states he was probably of Polish or Russian extraction), though claiming to have been born "in London of a German father and an Eng-

lish mother, and who at this date would be well along in the \*fifties as to age." (See above statement re ages.)

Nothing was heard of Thompson, alias Zangwell, or the stolen documents until the early part of 1904, when the St. Louis College of Physicians and Surgeons reports they received a communication forwarding "us an application blank to be filled out, applying for a license in the State of Nevada. His address was then Midas, Nevada." The Nevada Board reports a diploma issued to Galen R. Hickok by the St. Louis College of Physicians and Surgeons, dated April 26, 1899, was presented by the alleged spurious Hickok in connection with an application and thereupon the Nevada Board on May 2, 1904, issued Certificate No. 151, in the name of Galen R. Hickok, entitling the holder thereof to practice medicine and surgery in the State of Nevada. (See original Hickok's statement above that he never applied to the Nevada Board.) The individual to whom the latter license was issued thereafter is reported to have practiced in the towns of Dweth, Fly, Gardnerville and Midas, all in the State of Nevada, and to have married a Miss Graham at Charlestown, Mardis District, Nevada, whose mother, Mrs. Graham, lived at 1038-1222 Leighton avenue, Los Angeles, in 1913.

In the Spring of 1909 the alleged spurious Hickok took up a residence in Los Angeles, California, where, as a part of his application for a naturopathic certificate to practice in California, he is reported by Dr. Carl Schultz, then president of the Naturopathic Association of California, to have presented a diploma issued by the St. Louis College of Physicians and Surgeons to Galen R. Hickok on April 26, 1899. (Note above the statement of the original Galen R. Hickok that he never filed an application for a certificate to practice in the State of California.)

Note:—Before the Grand Jury in San Francisco on June 6, 1917, the alleged spurious Galen R. Hickok testified that he had been a practicing physician since 1889; was a graduate of the St. Louis College of Physicians and Surgeons of St. Louis, Missouri that he had practiced about five years in Los Angeles, the same length of time in San Francisco, and the rest of the time in Nevada.

Based upon the record of education, as evidenced by said diploma, the alleged Thompson, or Zangwell, or Hickok, was issued a naturopathic certificate.

A special legislative enactment in 1909 compelled the Board of Medical Examiners to endorse all certificates of the members of the Naturopathic Association of the State of California, provided the certificates were presented for endorsement not later than six months after the passage of the Act, and thus the alleged spurious Hickok obtained authority to practice naturopathy in the State of California. He was subsequently expelled from the association for unprofessional conduct, according to Dr. Carl Schultz.

Under date of August 12, 1909, the alleged Zangwell, or Thompson, or Hickok, wrote the Board of Medical Examiners from 632 West Sixth street, Los Angeles, announcing his removal from 1340 West Washington street, Los Angeles, and his residence in Los Angeles continued until early in the year 1914. During the entire period he was frequently under investigation as an alleged abortionist. An affidavit executed by ———, a resident of ——— Temple street, Los Angeles, states therein that on March 13, 1911, she called on Galen R. Hickok, room 234 Bryson building, corner Second and Spring streets, Los Angeles, in reference to an abortion; that Hickok stated he would perform the abortion at once; that he further stated he had a home that was all prepared for confine-



ment cases; that Mrs. J. C. ——— of ——— South Hoover street, Los Angeles, accompanied affiant to the office of Hickok.

Under date of May 15, 1911, in a communication signed by Attorney H. T. Morrow of Los Angeles, then in charge of prosecutions for the Board of Medical Examiners in Southern California, the alleged spurious Hickok is referred to as "one of the worst abortionists in town and against whom we have devoted a great deal of effort, closed his office and he has left the city."

The alleged spurious Galen R. Hickok then changed his abode to San Francisco, where on May 21, 1913, he was arrested at 1115 McAllister street, charged with committing an unlawful operation. For some years prior this same address harbored the office of Dr. Eugene Francis West, who had earned a flagrant police record as an abortionist, and who sometime since was reported to have disposed of his practice to Fisher M. Jordan, M. D., whose license to practice in the State of California was revoked June 26, 1918, on a charge of abortion.

Perchance his police experience in San Francisco led the alleged spurious Hickok to return to his former haunts in Southern California, inasmuch as a report from E. A. Somner, then special agent of the Board of Medical Examiners, dated Los Angeles, February 19, 1914, stated that on February 6, 1914, the alleged spurious Hickok was located at 330 Ferguson building, Los Angeles, associated with Rodney Madison, J. F. Millhouse and A. Palotay. Somner's report is substantiated by an affidavit of the alleged spurious Hickok, dated Los Angeles, February 17, 1914, in which he states that Mr. A. Palotay (unlicensed) was then using Hickok's reception room, and Mr. Rodney Madison (unlicensed), with whom Hickok stated he had agreed, as a part consideration of the sum he was paying for office furnishings and chattels, that Madison would do all he could to "induce certain parties with whom he had previously had dealings to call at my (Hickok's) office for professional or other service. To carry this out Mr. Madison agreed for a short time to stay in my office to meet such people that might come in and introduce them to me. Beside the cash consideration, I was to pay Mr. Madison for the above chattels, Mr. Madison and myself contemplated entering into an agreement whereby I was for a time to be agreed up by us, to give him 50% of any profits that I might receive from those parties introduced to me by him. On further thought and consideration, this was abandoned and my entire dealings with Mr. Madison are as set forth \* \* \*"

Our next record of the alleged Thompson, or Zangwell, or Hickok, appears in the handwriting of A. J. McDonald, former special agent of the Board of Medical Examiners, dated January 2, 1915, wherein he reports that "Galen R. Hickok, then located at 450 Ellis street, San Francisco, and until a year and a half ago with Dr. West on McAllister street, also Dr. Lord, called on Dr. R. L. Larson, 964 Market street, San Francisco, telling Larson that on all the profits made on women patients Dr. Larson would send him, he would split fifty-fifty."

On his return to San Francisco, the alleged spurious Hickok entered into an active advertising campaign, both in San Francisco and Oakland, distributing from house to house cards reading: "Dr. G. R. Hickok. Specialist for Ailments of Women (formerly with Dr. West), 704 Pantages Theatre Bldg., 935 Market St., between Fifth and Sixth Sts., San Francisco." The daily papers all carried the advertisement of "Galen R. Hickok (formerly with Dr. West), Specialist for Women Only. Cure guaranteed in every case accepted." The classified list of the San Francisco Telephone book carried a similar advertisement and his nefarious practice thrived.

Since 1911 the Board of Medical Examiners of the State of California has fruitlessly endeavored to serve citation papers on the alleged spurious Galen R. Hickok, commanding his presence before the Board to show cause why his license to practice naturopathy in the State of California should not be revoked. Hickok, evidently informed through underground channels, each time mysteriously disappeared, remaining in hiding until a date subsequent to the statutory thirty days next preceding a regular meeting of the Board, within which period no service of a citation can legally be made. Immediately on expiration of the time limit he could readily be found in his accustomed habitat. During the past two years our various special agents and operators have persistently endeavored in every conceivable way to secure service at the San Francisco office of Hickok, at the home of Hickok in Berkeley and at the "Mystery Castle" at Salada Beach. Finally by a ruse Hickok was served with a citation and complaint, returnable at the October, 1919, meeting. Legal obstacles were immediately forthcoming. The attorneys for the alleged spurious Hickok, sans their client, appeared at the June, 1920, meeting, but through default of witnesses it was found necessary to dismiss the charge.

About the time Dr. Ephriam Northcott, now incarcerated in San Quentin prison, was charged with murder (subsequent to the discovery of the body of Army Nurse Reed, ruthlessly thrown over a precipice in San Mateo county following her death as the result of a criminal operation), the alleged Thompson, or Zangwell, or Galen Hickok, for some unaccountable reason, closed his office in the Pantages building, San Francisco, discontinued his advertisements in various newspapers around the bay, and, according to his office nurse, Miss Clark, sold "some of his office furniture and equipment to a second-hand dealer" and the rest was to be stored in her residence, where, it was later ascertained, all mail addressed to said Hickok was to be delivered. Rumors persisted that the work heretofore performed by Hickok was being referred to a certain Market-street practitioner, whose license was revoked some years ago. Tales of closed automobiles conveying women patients from San Francisco to a San Mateo haven would not down, and now for the denouement.

The California Dr. Hickok remained in the background until about the middle of September, 1920, when he reopened his office in the Pantages building, San Francisco. A report to the San Francisco Police Department of the mysterious disappearance of a San Francisco married woman, recently treated by a doctor in the Pantages building, led the Police Department to raid the "Mystery Castle" at Salada Beach. They scaled the outer wall and, gaining entrance to the "Mystery Castle," found the premises equipped as a hospital, a nurse and cook in charge and three girls, 14, 18 and 21 years of age, confined to bed, alleged to have been criminally operated on by the alleged spurious Hickok. Hickok was immediately arrested at his Berkeley home on a charge of abortion, as well as a charge of contributing to the delinquency of a minor, and is now on bail, awaiting trial in the Superior Court of the County of San Mateo.

Additional record of Galen R. Hickok of San Francisco is as follows:

Arrested in San Francisco, May 21, 1913, charged with abortion.

August 12, 1913, held for Superior Court, San Francisco, on charge of abortion; bonds, \$5000.

Arrested March 15, 1916, charged with abortion.

Arrested August 25, 1916, charged with abortion.

Oakland Enquirer of May 23, 1917, stated that Hickok was charged by Coroner's Jury with abortion on Mary Ethel Bennett, deceased.

1917. Indicted by San Francisco Grand Jury on charge of murder in connection with the death of Mary Ethel Bennett.  
 February 9, 1918, arrested on criminal operation charge by Detective Andrew Ganghran, San Francisco.  
 February 18, 1918, rearrested on complaint of Hazel Wilson.  
 August 31, 1920, arrested, charged with abortion and contributing to the delinquency of a minor.

## Collected Clippings on Medical Law Enforcement

### Osteopath, License Revoked, Practices, Jailed

Pleading guilty of practicing without a license, J. Otis Burnett, of Los Angeles, was given 180 days' suspended jail sentence in Judge Chesebro's Court, Los Angeles, August 11, 1920. His license to practice osteopathy was revoked March 19, 1919, on a charge of performing criminal operation.—Los Angeles Examiner.

### A Dogberry Come to Judgment

T. H. Butler, an unlicensed chiropractor, was arrested at San Bernardino, Calif., August 20, 1920, on a charge of violating the Medical Practice Act. Justice of the Peace A. M. McCrary released Butler without bail and complimented him upon his success!—Los Angeles Record, September 4, 1920.

### A Tale of Great Expectations

The Sacramento Union says that 125 chiropractors called on acting Governor Young on September 4th, petitioning that the executive suspend prosecution of unlicensed chiropractors until after the November election, when the chiropractor initiative will be placed before the people. The Los Angeles Examiner stated August 29th that 600 automobiles would leave that city alone for this pilgrimage. Elimination must have been ruthless when but 125 individuals from the entire State appeared in the finish at the State Capitol.

### Dr. Martha Allen Reinhart Surrenders

Dr. Martha Allen Reinhart (licensed) surrendered to the San Francisco police on September 17th, and was given a preliminary hearing upon the charges of contributing to the delinquency of a minor and of abortion as the alleged accomplice of "Dr." Galen Hickok. She was released on bail, after being held to answer to the Superior Court.

### Charge of Murder Follows Illegal Operation

Dr. L. A. Banter, a licensed physician and surgeon, was arrested at Pittsburg, Calif., September 16, 1920, charged with murder, following the death of Mildred Stou, which occurred on September 11th, as a result, it is alleged, of an illegal operation. A plea of not guilty was entered at the preliminary hearing on September 17th, and Dr. Banter was released under \$20,000 bail.

### Physician "Dangerous to the Profession"

Because he lent his aid to peddlers of morphine, Dr. Charles E. Brown, a physician of Fresno, Calif., was declared by Judge Briggs "dangerous to the medical profession." Dr. Brown was arrested September 17, 1920, and pleaded guilty to selling morphine in wholesale quantities to peddlers, recently selling 850 grains to peddlers within three weeks, reported twice as much as was purchased by all the other physicians of Fresno in the same period.

### Violators of Medical Practice Act

Chinese "herbalists" and chiropractors divide the honors in recent arrests for violations of the Medical Practice Act in the State. Some of the more notable instances follow:

The Long Beach Press, August 28th, says that J. Fred Courtney, unlicensed chiropractor, was arrested for violation of the Medical Practice Act and was released on \$250 cash bail.

Melville Ellis, chiropractor, was arrested at Long Beach, charged with practicing without a license, according to the Long Beach Press of August 2nd.

H. Engmarsk, chiropractor, arrested at Los Angeles for practicing without a license, stated that ten chiropractors had been arrested during the first week in August for violating the law, according to the Los Angeles Record of August 7th.

B. E. Frank, arrested at Chico for practicing as a chiropractor without a license, has declared his intention of bringing ex-Governor Morris of Wisconsin, attorney for the national chiropractic organization, to California to defend him, according to the San Francisco Chronicle of August 22nd. On the several prior occasions that ex-Governor Morris has journeyed to California as attorney for chiropractors accused of violating the Medical Practice Act, he has invariably been worsted by the attorneys for the Board of Medical Examiners.

The Vallejo Chronicle of September 3rd says that T. S. Handley, recently convicted of violation of the Medical Act in Vallejo, came into court expressing the wish to pay the fine and drop appeal.

M. Iverson, unlicensed chiropractor, arrested at Pomona for violation of the Medical Practice Act, says, according to the Pomona Bulletin of August 7th, that he will make a hot legal fight.

Chong Hi, Chinese herbalist, was arrested at Chico on August 19th, charged with violation of the Medical Practice Act, according to the Chico Enterprise of August 19th.

Mabel A. Kellom, unlicensed chiropractor, was arrested at Chico August 19th, charged with violation of the Medical Practice Act.

The Sacramento Bee of August 20th reports the arrest of Quong Kee, Chinese herbalist, on a charge of violating the Medical Practice Act.

W. S. Ling, a well-known Chinese herbalist of Oroville, was arrested there by Assistant Special Agent Favatt on a charge of violation of the Medical Practice Act. The Oroville Register of August 21st reports his release on \$1000 bail.

W. E. McClelland, unlicensed chiropractor, was arrested at Eureka August 9th on a charge of violation of the Medical Practice Act, according to the Eureka Standard of August 10th.

Ada McKeon, unlicensed chiropractor, was arrested at Grass Valley August 23rd, charged with violation of the Medical Act, and was released on \$100 bond, according to the Sacramento Bee of August 24th.

Mura Mizuno, unlicensed Japanese, was arrested at Del Rey, Fresno county, charged with violation of the Medical Act, says the Riverside Observer of August 5th.

Poo On, Chinese herbalist of Modesto, who appealed some months ago from the sentence imposed by Superior Judge J. C. Needham, must go to jail and pay a fine for violating the Medical Practice Act, as determined by the District Court of Appeals.—Fresno Republican, September 10th.

C. E. Parsons, unlicensed chiropractor, was arrested in Los Angeles August 9th on a charge of violating the Medical Practice Act.

## Status of Venereal Disease Control

### REPORT OF COMMITTEE ON CONTROL OF SYPHILIS AND GONORRHEA

(Adopted by Faculty of Stanford University Medical School)

The problem of controlling venereal disease is, as all recognize, a stupendous undertaking from every point of view, and one which demands far



more support, not only from the medical profession but from the public in its attitude and from the state and federal bodies as regards financial and legal support. The ideal method for controlling venereal disease is very intricate and would be the cause of much criticism at the hands of all who fall prey to its enforcement.

From a medical standpoint the licensed and segregated areas in large communities had or might have had their desired advantages if there were not insuperable objections from a moral and sociological point of view. The main trouble with the licensed areas was that their mere presence was a constant temptation and invitation to men and women and announced openly to the world at large that prostitution had a right to exist. Communities that have abolished them have formally declared that they do not approve of prostitution, and that their young manhood and young womanhood should look with shame on such proceedings.

In a segregated and recognized area, we certainly had a unit on which to work against venereal disease, a control, if it had been handled in a straightforward way, over a large part of the venereally diseased women, and a means of control over a large number of the men who would patronize them. However, as long as segregated areas of prostitution are abolished and their re-establishment would be met with a terrific outburst of opposition and antagonism, we are confronted with the proposition of endeavoring to make sexually clean large and small communities where the venereally diseased and nondiseased mingle freely and often without any knowledge of the status of each other; where clandestine prostitution is conducted in supposedly clean households, and where a sense of false security is created among the sexes because of the social position or character of the household. The many evils of the segregated and nonsegregated areas are known to all thinking men and women, however, and need not be elaborated at length.

The fundamental method of controlling venereal disease is education, both at home and at school. Fathers and mothers are still very prone to neglect this side of their children's lives. Boys soon acquire a hazy knowledge of some of the facts and girls to a less extent. Many girls still become wives without knowing that their husbands or their own youthful indulgences may be the cause of continuous ill health to themselves and their children. Many young men are married without for a moment considering that the diseases they had a few years ago, though now latent, may be the cause of ruining their homes and the health of those in them. Young men and young women must be taught that every one with whom they are sexually intimate must be considered either an active or latent carrier of disease until they are proven otherwise. This seems very drastic and unjust to many obvious non-offenders. However, as long as it is definitely known that venereal diseases can be contracted in innocent ways, no one who is fair minded should be bigoted enough to consider himself or herself an exception to all rules which govern the rest of humanity.

In the effort toward education, nothing has impressed the public more or given them more firsthand knowledge than certain moving picture films which were shown during the period of the war, and later. The film entitled "Fit to Fight" was especially well received, and it has been the experience with both private and clinical patients that they greatly appreciated the information given them by this means, and would gladly receive more such information were it available and presentable. Undoubtedly moving pictures have great educational possibilities, not only because they present their subject clearly, quickly, but because

people are enabled to appreciate and understand them with a minimum amount of effort.

Not only should those reaching adolescence be taught regarding the likelihood of contracting venereal disease following intercourse, but those who are not apt to be deterred by this fear should be taught the methods of prophylactic treatment if clandestine coitus has occurred. There are often cases reported where attempts at prophylaxis have been undertaken but without a definite knowledge of the method of procedure. Prophylactic stations should be provided in places as convenient as possible, and their patronage should be kept private and efficient in order to discourage negligence, and to give instructions to those who are ignorant as to prophylactic measures. These stations should be placed in accessible places where treatment can be conveniently given and where people will be encouraged to take advantage of this opportunity. In San Francisco, for instance, such localities as the Ferry Building, Southern Pacific Depot, Central Emergency Hospital, some of the large down-town hotels and the Beach, should be provided.

Following the education of men and women as to the origin, results and most trustworthy methods of controlling venereal diseases, should follow a faithful reporting of all cases which present themselves for diagnosis and treatment. Of course early and severe cases are easily detected, but painstaking and accurate methods should be enforced in all doubtful cases. Recommendations from competent physicians who have some claim, though perhaps not letter-perfect, should receive credence enough to compel patients to carry out treatment, as in all such cases it is far better to err on the side of safety than to take the chance of a long-continued infirmity. It is useless to elaborate on the amount of distress and disability that may follow the careless oversight of a few doubtful organisms found on a smear. The idea of reporting cases is, of course, to have a record of infected people who shall be kept under supervision until well, and to furnish the necessary data which would be an index to the number of cases cured, benefited or unimproved, and also as to the expenditure of funds.

Before venereal disease can be eradicated some drastic means will have to be instituted and enforced regarding it. It is a somewhat futile expenditure of money and energy to treat a patient for a Neisserian infection in San Francisco and allow him, in the midst of his disease, or in its acute state, to take a trip to Chicago or New York and to indulge as he may desire. Not only is the time and money on the part of those who contribute being wasted, but at the same time the larger fact of eliminating venereal disease is being lost sight of. The ideal method for controlling such diseases would be to keep each infected individual in confinement or in quarantine until the likelihood of his infecting others was over. Also, of compelling infected men or women to divulge the source of their infection. In this way both sexes would be restrained from spreading the disease they harbor.

Under such regulations a person would not necessarily have to stay in absolute confinement, but would be compelled, in going from one part of the country to the other, to resume his therapy and have his new physician either notify the authorities or the doctor by whom he was originally treated. The method now in vogue of allowing people to continue or discontinue treatment as they like will never attain satisfactory results. In connection with this somewhat elaborated method of control, an efficient follow-up system and a careful reporting of cases would necessarily have to be established to handle the compulsory side of the problem. The control of venereal disease (other than by the method of

education) will only be possible through carrying out drastic measures.

The question of premarital examinations has always to be considered when the control of venereal diseases is being attempted. In this connection a decided amount of discretion is necessary, but until legal and educational means have eradicated these diseases, it is necessary to consider it. These are the cases where venereal diseases are most often innocently spread, and every precaution should be taken before otherwise happy and prosperous homes are contaminated.

With venereally diseased patients under legal and competent medical control; with every effort being made to induce people to take advantage of the usefulness of prophylaxis; with premarital examinations being made and faithful control of patients being kept and followed, venereal diseases should soon decrease decidedly.

The foregoing suggestions will doubtless be considered rather drastic but they are only presented as a working basis, and an attempt to get at the root of one of the great scourges of the human race. Modifications which are as effective, or more so, should be gradually instituted—all aiming at the most efficient means of eradicating these plagues.

#### Method of Handling Luetic Patients

The method of handling luetics in clinical work has been worked out practically at the Stanford University Medical School in the clinic for skin diseases and syphilis.

Luetic patients are admitted through the Social Service Department and assigned to the skin clinic. Luetic patients, unless cerebrospinal lues are transferred to the skin clinic when discovered in other departments of the University Medical School. Both acute and chronic cases are at once reported on official blanks to the Board of Health.

Following a thorough physical examination and routine urinary examinations anti-luetic treatment is begun. In early cases the administration of arsphenamin is immediately begun in the Clinic ward of the Hospital adjoining the Clinics, and a course of five grey-oil injections or 30 mercury inunctions is begun, unless there is some physical contra-indication. Printed instructions as to the method of employing the "rub," as to the possibilities of untoward symptoms and the importance of reporting such to the Clinic are always given to the patients to carry away with them. There is always given, also, a booklet and printed sheet regarding the dangers of lues to themselves and those around them; as to the necessity of persistent and faithful treatment and the serious results which lues may produce. This information has been given out at Stanford since 1912. (Copies of these are attached herewith.)

In late cases the patients are put on a saturated aqueous potassium iodide solution with instructions as to the dosage and procedure of increasing it. This is, of course, combined with the mercury and arsenic treatment. The mercury inunctions are given in a course of thirty rubs (4/0 gm. to men and 2/0 gm. to women) and arsphenamine is given intravenously. After these patients have had a sufficient number of arsphenamine treatments (6 to 10), to justify it, a rest is given for a week or two, followed by a Wassermann test. If the test returns negative, the patient is put on a mercury and potassium iodide mixture for a period of 3 to 6 weeks and a blood test is again taken after an intervening period. Tests are repeated at intervals of one to two months during the first year, and if after that the patient is serologically and clinically negative, he is observed at intervals of 2 to 4 months for the two succeeding years. Of course frequent examina-

tions are made for possible visceral or cerebrospinal foci during the entire period of treatment.

If the blood returns positive the anti-luetic treatment is continued as persistently as possible. This plan is constantly being modified in our efforts to improve our methods.

Intravenous treatments are given both in the Hospital and in the Clinic. All patients who are financially able are sent into hospital wards and given Arsphenamine treatments, where they remain over night (at a total cost of \$6.50). Patients who are not financially able, are given Neoarsphenamine intravenously in the Stanford clinic for the cost price of the drug. In case patients are unable to purchase the neoarsphenamine it is furnished them from the budget of the Stanford clinic. The ambulatory patients are required to remain under observation from 15 to 30 minutes following the intravenous treatment.

All funds are handled through the Social Service Department of the University, especial care being taken that the patients purchase their medicine from the Dispensary, getting a receipt therefrom and turning the same over to the Social Service worker who delivers it to the Stanford clinic on the day the patient receives his treatment. No funds of any kind are handled by those doing medical work in the clinic.

An efficient follow-up system has been established to look after negligent patients or those who discontinue their treatments before they are cured. The patients are written to promptly after they discontinue treatment, and if they do not respond, are called upon and urged by the Social Service workers to continue their treatments and to follow instructions as given regarding their conduct.

In the city night clinics the University has a valuable adjunct. Here treatments are given to patients who are unable to leave their work and report to the University clinics during the day. The city clinics also charge a nominal fee for the injections, since on account of lack of appropriations, it is no longer possible to obtain free medication. The city clinics administer both Neoarsphenamine and Arsphenamine according to their ability to retain the patients in case of reaction.

#### Involvement of the Central Nervous System

As every case of skin or visceral disease is potentially a case of neurosyphilis, it is advisable either during intensive treatment or when the blood Wassermann is negative, to make certain of this point before the patient is dismissed.

As even the most careful neurological examination frequently fails to disclose evidence of a very early nerve involvement, lumbar puncture should therefore always be done. If a cell count, globulin test, Wassermann and colloidal gold tests are negative the patient may be dismissed. However, a positive spinal fluid requires energetic treatment.

As Arsenic is known to penetrate into the spinal fluid, following intravenous injection of Arsphenamine, in about 40% of cases, it seems best to give every case of neurosyphilis the advantage of intensive intravenous and intramuscular medication.

If the spinal fluid clears up and the subjective symptoms improve, no further therapy is indicated. However, these cases resistant to intensive intravenous methods should have the benefit of intradural medication. While these methods leave much to be desired, they still enable us to arrest cases absolutely intractable to other medication, and when properly given, have no distressing or dangerous complications.

Committee: H. E. ALDERSON (Chairman),  
H. J. PRUETT,  
H. J. MEHRTENS,  
J. R. DILLON.



The following are copies of "instruction sheets" that have been given our patients since 1912.

### Inunctions

Every night before you go to bed, take the contents of one salve capsule in the palm of the hand. Sit down in a chair in a warm place, and rub the salve slowly into the skin for one-half hour. Do this every night for six nights, using a different place each time. Always choose a place free from hair. For example the following six places can be used by most people:

1. Front of right arm.
2. Front of left arm.
3. Right side of chest.
4. Left side of chest.
5. Right side of abdomen.
6. Left side of abdomen.

The inner side of the thighs can be used instead of one of these places if it is free from hair. Do not rub into the same place twice during the week. Do not take a bath until the seventh night, and that night do not use the salve.

On the next night begin with the rubs as before.

If there is any hair on any of these areas, choose some hair-free region instead, otherwise the skin will become irritated. It is best to wear rubber gloves when you rub in the salve. Do not change your underwear until after the bath on the seventh night.

Gargle your throat night and morning with salt water (two teaspoonsful of salt in a whole tumbler of water), or use the mouth wash ordered by the doctor. Brush your teeth after each meal. Don't drink any liquor and don't smoke. Keep well and strong. If your mouth becomes sore, come to the doctor at once.

H. E. ALDERSON, M. D.

Skin Clinic, Stanford University Medical School.

Stanford University Medical School, San Francisco  
Clinic for Skin Diseases and Syphilis

### INFORMATION REGARDING SYPHILIS

Syphilis is a very contagious disease and remains contagious for years. It is due to a microbe the nature of which is definitely known. The disease is usually quite curable. It is also preventable.

The manifestations of syphilis usually appear in from two to six weeks after exposure to the disease, in the formation of a sore at the site of inoculation.

The further manifestations consist of skin eruptions of various types which recur frequently in the course of the next few months or years (eruptions of the skin, sexual organs, the buttocks, the palms of the hands and soles of the feet, the lips, tongue, tonsils, etc.). The disease may also affect any organ or tissue of the body.

Often early symptoms trouble one very little and therefore may be overlooked, or mistaken for something else by the patient. In such cases severe symptoms may appear many months or years later. Proper treatment will prevent the appearance of these symptoms.

Persons suffering from syphilis should boil all articles used by them which may carry the disease, in order to protect others.

The disease, aside from sexual contact, is communicated in many ways, among which may be mentioned kissing, using (after a syphilitic person has done so) any of the following: glasses or cups, saucers, spoons, knives, forks, cigars, cigarettes, pipes, soap, combs, brushes, or wearing apparel, as well as by direct contact with a person having syphilis or sleeping in beds used by syphilitics. The infection enters the system through some cut or abrasion in the skin or mucous membrane. This cut or abrasion may be so slight as to be almost invisible.

Syphilis is ordinarily quite curable; but it cannot be cured in a single treatment. One injection of salvarsan (606) is not enough. Repeated treatments are necessary under proper medical supervision. Treatment must not be given up until the attending physician advises that it is safe to do so.

The dangers of the disease include insanity, blindness, paralysis, loss of the nose and palate, decay of bones, and other disfiguring or destructive results.

Only when a patient has taken thorough treatment at the hands of a competent physician, is he protected from the later severe manifestations of the disease.

Persons having syphilis should carefully observe the following rules:

Look carefully after the condition of your mouth.

Brush your teeth thoroughly three times daily and

use the prescribed mouth-wash frequently. In cleansing the mouth pay especial attention to the gums and folds behind the teeth. If you have any sores on the gums and inside the cheeks, or on the tongue, or swollen gums, notify your doctor promptly. When you consult a dentist, be sure and tell him that you have syphilis.

During the course of your disease, and while you are taking treatment, you must lead a regular and rational life, avoiding all excesses. Avoid all strongly spiced foods and be very moderate in the use of wine, beer, or other forms of liquor and tobacco. It is best to avoid them entirely, for they add to the dangers of the disease. You should at all times avoid all possibility of communicating the disease to others.

You should not marry sooner than four years from the time of your infection. Marriage at an earlier date is dangerous to both wife and child. Instructions as to when you shall cease treatment and when you may marry, must always be given by the doctor.

Make it a rule to report to the doctor immediately any unusual symptoms. Keep this paper and show it to your doctor and always ask his advice regarding your sickness.

In the future whenever you have occasion to consult a doctor for any purpose, be sure to tell him that you have had syphilis. It is of the greatest importance for him to know this.

H. E. ALDERSON, M. D.

## Deaths

CRONEMILLER, MARY M.—A graduate of the Hahnemann Medical College, Chicago, Ill., 1890. Licensed in California 1890. Died October 12, 1920.

GIBBONS, W. E.—A graduate of the Medical College of the Pacific, California, 1876. Licensed in California 1878. Died in Stockton September 21, 1920. Was a member of the Medical Society of State of California.

JOHNSON, WALTER SYDNEY—A graduate of Harvard Medical School 1898. Licensed in California 1902. Died in Los Angeles September 19, 1920. Was a member of the Medical Society of State of California.

LAMOREE, EDITH V. A.—A graduate of Cooper Medical College, California, 1894. Licensed in California 1896. Died in Ventura, Calif., September 18, 1920. Was a member of the Medical Society of State of California; also physician at the State School for Girls.

LARKEY, A. S.—A graduate of Hahnemann Medical College, Pennsylvania, 1889. Licensed in California 1890. Died in Oakland, Calif., September 27, 1920. Was a member of the Medical Society of the State of California.

MANCHA, JACOB S.—A graduate of University City of New York 1884. Licensed in California 1901. Died in Los Angeles September 24, 1920. Age 81.

MAXSON, HARRIET S.—A graduate of University of Michigan 1885. Licensed in California 1888. Died in Berkeley, Calif., September 27, 1920.

PARRAMORE, EDWARD L.—A graduate of the Kentucky School of Medicine, Kentucky, 1889. Licensed in California 1889. Died in Oakland, Calif., October 8, 1920.

URQUHART, R. A.—A graduate of University of Virginia 1874. Licensed in California 1888. Died in Los Gatos September 4, 1920. Age 69.

VAN PATTEN, PHILIP S.—A graduate of the College of Physicians and Surgeons 1898. Licensed in California 1908. Died in Los Angeles, Calif., September 17, 1920.

That these anti-health forces did not succeed in



their "busting business" shows beyond quibble that the people of California have confidence in scientific medicine and its agents and agencies and will not wantonly handicap its progress or destroy its efficiency.

Almost any sober person would agree that to determine scientific questions by popular vote is a dangerous experiment. That it was successful this time was due to the energetic, well-directed, organized efforts of the medical profession in placing the facts before the people.

The proper place, however, for such serious questions as were involved in propositions 5, 6, 7 and 8, to be discussed and determined, is in our legislative halls. The average voter lacks the time and has little opportunity to examine witnesses that offer conflicting testimony for the various measures. The bewildering array of propositions on the ballot at our recent election was beyond the grasp of the most intelligent voter. The text of the measures was twelve times larger than the Constitution of the United States. How many people read all the measures? And where is the solitary individual with the myriad-mind that can accurately decide questions so diversified and far-reaching?

On many of the amendments many voters refused to vote. The history of the adoption of occasional freak and dangerous measures is due to this habit of conscientious citizens who refuse to vote on something which they do not understand.

By neglecting to vote on certain ballot proposals, however, they unwillingly and unwittingly help to pass them.

A constitutional amendment was adopted in this state in a previous election by an affirmative vote that was less than 16 per cent. of the total registered vote. For less than one-sixth of the registered voters to be able to change the fundamental law of the state is manifestly a serious menace to institutions that have been established through years of industry and inspiration, as well as to majority rule and representative government. But this is a condition and not a theory with which we are constantly confronted in California. And those who stand in stature majestic apart from the throng contribute by their indifference and inactivity to the menacing minority that seeks to undermine modern medicine.

In the contest between quackery and scientific medicine he that is not with us is against us, and he that gathereth not with us, scattereth.

#### REFLECTIONS AFTER THE BATTLE

Probably in the world's history there has never been so solid an alignment of the enemies of scientific medicine arrayed against the medical profession as in the campaign just ended. Certainly never have those enemies been better financed, more sure of victory, and more virulent in their attacks on all that goes to make scientific medicine. That they were hoist by their own petard, pulverized by the force of their own vituperation and destroyed by the reaction of their own vindictiveness, is due to one single outstanding fact. That same outstanding fact explains the vitality and strength of the medical profession today. That

fact is simply this. In the hour of crisis, the doctors of California recognized the issue between quackery and scientific medicine, and rose unitedly and aggressively to defend their own rights and the rights of the public. As soon as this effort was manifest, the result was no longer in doubt. Against the most bitter, vindictive, well-directed and heavily financed assault of its combined enemies, the medical profession secured an overwhelming and challenging victory.

The lesson of the campaign is above all else, now that our sinews are tried, that we have won a notable and tremendous victory, that the struggle is but begun. Each election, each session of the legislature for a generation to come, will doubtless see attacks on public health and scientific medicine staged by the same old foes of both. The lesson of the campaign is that ORGANIZATION is an absolute essential for success and that we must fight in the future as hard as in the past. We have not finished. We have barely begun. These foes of health and scientific medicine are always with us. They must be controlled. This control depends on two things: an enlightened public and an organized medical profession. Given the latter, the former will follow in pace. We have now an organized medical profession. We have found that even the doctor can agree. We have found that there are certain great principles on which we are agreed and on which we can take common stand. The non-essentials are simply non-essential. The essentials are few but important. We have got together on these essentials in the League for the Conservation of Public Health. When we are agreed, when we are unanimous, when we unite on the great essentials, the campaign just closed shows what will result. Therefore the key to the future is again, organization, ORGANIZATION, a League for the Conservation of Public Health which represents the essential unity of the medical profession and which by efficient, skilfully directed organization does the work in a big way which all of us together as individuals could not even touch. And with it we must realize that our organization must be made stronger and stronger yet, its sinews must be oiled and its muscles strengthened. It must be conservative and, as it has in the past, must represent only the great principles on which we are unanimous and united. The great majority of the representative doctors of California are members of the League. Only the misanthrope or the unseeing can possibly stay out now.

One of the sad surprises of the campaign to the Eddyites was the unmasking of their support for the Quack Quartet and their particular founding, Number 6. It could not logically be called their child, and if in the campaign there was anything which needed the protective services of the alleged Public School Protective League, it was this very Number 6. How strange, how passing strange that the Eddyites should so early have raised the cry that the doctors were dragging religion into the campaign, and how effectually the cry was silenced by the straight facts of their own deeds. They themselves did the dragging

with a heavy hand and refused to abide the consequences.

The Eddyites will hardly recover from the stigma of their vain effort to destroy health and safety and scientific medicine in California. The policy of the chiropractors is illustrated in the advertisement reproduced herewith.

#### AMENDMENT NUMBER FIVE DEFEATED

##### Chiropractors Must Continue Without Regulation

Because amendment No. 5, the Chiropractic bill, failed to pass, 822 Chiropractors in California must remain without regulation, as under the present law they are prohibited from taking an examination before the Medical Board.

The status of the Chiropractic profession has not been changed by the election of Nov. 2nd. All Chiropractors maintaining offices will continue as before election, and as many more as desire to do so will establish themselves, whether they are competent or not.

Until the Chiropractors are regulated by the State the public must rely on the individual's reputation. Choose well your Chiropractor and results are certain. Ask your neighbor.

For brazen, law-defying insolence it is matched only by the audacity of its misstatements. Let no doctor settle back in the old routine and feel that all is as it was. It will never again be the same. The fight has just begun. Our climate is too exquisite, our state too popular, while theirs is the breath of life or while any future possibility seems open to them of reaping dollars where they have sowed naught but commercial desire.

And while we are about it, let's have done with prostituting two of the noblest words in the language. Eddyism it is and Eddyism it should be called. Based on a psychologic absurdity, opposed to health and science, it stands today, exposed by the campaign just closed, as senseless sentimentalism. We need more scientific Christianity and less, infinitely less of the meaningless mouthings of contagion-denying Eddyism.

Finally, as firstly, do not forget that the victory won was the victory of right and scientific medicine, well organized and led. In organization lies our hope. In organization lies the hope of the people. Build up our organization. Forget personalities. Forget trivialities. Forget the non-essentials. Get together more and more on the great principles of our profession on which we are agreed, and in whose defense the sound electorate, advised by the medical profession, is invincible.

#### TYROQUACKTORS RAMPANT

Although the time of the tyroquacktors during the past several months has been pretty fully occupied in tacking up Number 5 signs on the dead walls, telephone poles and every nook and cranny of the state, some of them devoted extra hours to their customary pastime of violating the medical practice act. Among the many only a few may be recorded here. We observe among them the names of George Shaffer of Los Angeles, George R. Smith of Sacramento, G. R. Henderson of San Francisco, Frank P. Whidden of Sacramento, L. H. David of Sacramento, C. M. Jones of Sacra-

mento. A. C. Ingraham of Los Angeles was adjudged guilty on a charge of violating the medical practice act and paid a fine of \$100.00. Ernest R. Morse, chiropractor of Los Angeles, was arrested seven days before election. It was confidently claimed by the chiropractors that on election day their troubles would be over. They believed that their aggressive campaign and such vast publicity was bound to win a chiropractic Board of Examiners. They held many demonstrations, among them one in Sacramento in which they called at the Governor's office and urged the Governor to declare a truce and instruct the State Board of Medical Examiners to refrain from enforcing the law until after the election. They assured the Governor that they were going to win. They issued proclamations urging their entire membership to mortgage their homes, automobiles and office mallets, etc. With chiropactic characteristic they thrust themselves into public and private meetings. They violated all campaign canons and all proprieties of debate. They seemed to think that a tale full of sound and fury would impress the public. But they were mistaken. They now declare that they will go on defying the law. But the State Board of Medical Examiners, backed by the law and the endorsement of the law by the people of California, will not hesitate to enforce the law with vigorous vigilance. The medical practice act was passed by the legislature for the protection of the people, and the people by their votes have declared that they consider one responsible board adequate.

#### RAGE OF POLITICAL OSTEOPATHS

A local newspaper announces that the osteopathic association which conducted such a futile fight against the Poison Act during the recent campaign will fight in the next legislature to abolish the present Board of Medical Examiners and substitute for it a commission fashioned probably according to the lights and delights of the association. Whom the gods would destroy they first make mad, and these defeated political osteopaths are mad clear through. Every time they look at the election returns on Number 8 they get a little madder. Even though they combined with the alleged Public School Protective League they received a deserved drubbing. The voters had no difficulty in detecting the camouflage.

When the legislators look over the returns of November 2d they will know how to value the prejudicial partisan recommendations of the political osteopaths. The people of California have placed such a strong stamp of disapproval upon the recent referendum of these political osteopaths, that they would hesitate to talk so wildly of engaging in further contests if they were not still groggy from the knockout of November 2d.

We are reserving for future comment the anti-health activities of some of this small group of political osteopaths.



### A GROSS MISTAKE

We read in the Hollister "Free Lance" that Dr. G. Clement King, former Episcopalian pastor, who for some time past has been practising the chiropractic art in that metropolis, has left for pastures new where he will take up his noble work. It will be remembered, of course, that the chiropractic colleges assure us that no matter how often a man may fail in other walks of life, after a six-months' course in a chiropractic college he is sure to succeed in this strenuous art of healing.

We presume, then, we are to assume that the Rev. G. Clement King, we might say the Episcopalian, has succeeded so successfully that he feels he is hiding his light under a bushel in Hollister and is going to give some larger center a chance. All we can say is, what will Hollister do without him?

Dr. Pinkham, Secretary of the Board of Medical Examiners, informs us that there are some forty chiros under arrest awaiting trial for practising medicine illegally. The only reason all are not in a similar position is the overcrowded condition of the courts.

P. S.—We notice by the same editorial that Dr. M. L. Gross is to take the place of Dr. King. We are rather inclined to think this is a gross mistake.

### COMPULSORY CHESTNUTS

The United States Department of Agriculture after ten years' experimentation is now able to demonstrate that it is possible to cross the chinquapin, a dwarf chestnut, with the Japanese chestnut, which is blight-resistant. The hybrid trees produced are quite resistant to the disease of Japanese origin which almost annihilated the chestnut orchards of this country. The orchards which are being restored through the scientific efforts of experts yield nuts of good flavor and quality.

Some day some "nuts" may start an initiative to prohibit compulsory chestnuts, claiming vehemently that dwarf chestnuts have an inherent right to remain dwarf chestnuts. This initiative is respectfully referred to the proponents of Number 6.

The two middle members of the "Quack Quartet"—6 and 7—appeared in the final feature of their joint campaign with a handbill declaring "Boards of Health All Bunk." Some of our main streets were literally littered with this ludicrous literature. It was truly descriptive and worthy of its source.

## Original Articles

### THE EDUCATION AND TRAINING OF THE MODERN SURGEON.\*

By ANDREW STEWART LOBINGIER, A. B., M. D.,  
F. A. C. S., † Los Angeles.

The modern student of medicine still suffers from the lack of balance and perspective in the curriculum offered for his training. One wonders if we shall ever get away from time-worn and obsolete methods; if we shall ever realize the years required to mature the scientific student in the manner and the method of acquiring knowledge.

In an effort to save time, we have adopted a combination of an abridged academic course with

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

† Chairman's Address, Surgical Section, California State Medical Society, Santa Barbara, May 11, 1920.

a crowded professional one, only to produce an immature and undertrained individual whose mind has been taught to hasten and crowd, but never to correlate. There is no short cut to mature accomplishment. Carlyle's *not* that "genius is simply the expression of the capacity for hard work" is inapposite, if the effort be misdirected. It is as true in surgery as in letters, that a broad and liberal academic background is absolutely essential to an authoritative place in art.

The acceptance of the doctrine that the humanitarian studies are not essential to culture and may be disregarded in a scientific training, is a retrogression. Such specious argument has gone far to make the medical student shallow, inadequate, and pitifully hedged about by limitations from which there is no escape.

The greatest indictment against the American student is his haste to "get through." It is only another expression of that insularity which has distinguished us.

There is not only need that we should be deliberate and cultivate a philosophic poise in our method of study, but that we should acquire a sense of proportion in life's relationships.

If the American surgeon would establish a proper claim to scholarship, he must touch art and life at more vital points, and reveal a versatility which will justify that claim.

The late war brought into salient relief what had been long known to teachers of surgery, that an ever-increasing number of men in this country have a secret yearning to be known as surgeons. Applications to go on the surgical service at the base hospitals were pressing and abounding. As in civil practice, inadequate qualifications and training were no barrier to this aspiration. It derived its *raison d'être* from the conscious assumption that having a record of a limited number of major operations was sufficient justification. It has never been for such men to distinguish between a manual facility and a real scholarship in surgery. It is because most of us have failed in that essential distinction that we are justly known as a "race of operators." We have accentuated speed and manual dexterity and neglected the intellectual and spiritual foundation upon which every great structure of art or science must be grounded.

If we may assume then that the pre-medical training has been broad and scholastic we must consistently carry the primary purpose to its logical conclusion and make the scientific training generous and scholarly, and one of the first steps in this purpose should be to rid ourselves of some false traditions. One of these is that a knowledge of anatomy is so indispensable to the surgical student that physiology and chemistry may be regarded as subjects concerning chiefly the internist.

A similar fallacy has existed relative to physical diagnosis. The truth is, the surgical student learns anatomy as he would his alphabet, but he should be made to understand the great fundamentals of his surgical knowledge are biology, chemistry, physiology and pathology. His learn-

ing and accomplishment can never grow stale and unprofitable in these four great fields of investigation. They should not be investigated solitarily, but in their remarkable correlations. Three of these subjects should be studied experimentally. It is quite as necessary that we should study chemistry and pathology experimentally as we should physiology. It is of course necessary that we should study chemistry in its arbitrary subdivisions, as inorganic, organic, bio-, physiologic and pathologic chemistry; but we should understand the relationship of their reactions and conditions under which they operate in the human body. If we know our physiology and pathology well, we shall find it less difficult to interpret problems in pathologic-physiology and, in like manner, questions in pathologic-chemistry.

We have long confused the subject of pathology with morbid and microscopic anatomy. At the Nottingham meeting of the British Medical Association in 1892, Victor Horsley, in his address as chairman of the Section in Pathology, said: "However absurd the statement may appear to some, I venture to assert that pathology as such is almost unknown amongst us. The fact is that what is commonly spoken of as 'pathology,' taught as 'pathology' and made the subject of examinations in 'pathology' is nothing of the sort; it is not pathology; it is morbid anatomy. . . . The pathologist should be the student of disordered function, as well as of disarranged structure. . . . To what are we to ascribe the surprising indifference to pathology? I have not the slightest hesitation in saying that it is due to a want of familiarity with modern progress in physiological and chemical research. Fortunately, laboratories are springing up now on all sides, original investigations are being pushed forward, light and knowledge widely diffused. The reproach that we have been dead-house students rather than pathologists will therefore soon be wiped away."

But has it? Has this reproach, uttered a generation ago by this great master in experimental physiology and pathology, no ground for reiteration today? Some progress has been made and some things we have learned, amongst them that the misleading gross appearances in the dead room are not to be considered beside the living pathology revealed at the operating table. But Moynihan's emphasis placed on these informing evidences can not suffice for that vaster field of pathologic physiology and pathologic chemistry which can only be investigated by laboratory and experimental research. The modern medical student has barely crossed the threshold of chemical and pathological research. Much of his time, if he has been fortunate enough to be assigned to such investigations, must necessarily have been occupied in the disproof of theories hitherto accepted. When the writer was a laboratory worker, a half year of most laborious effort resulted only in the disproof of an obtruse theory in a problem in pathologic chemistry. One could scarcely say the time spent in this original investigation was wasted, because that particular fact was conclusively settled. Even a negation may have an abstract affirmative value.

It is this very point of view that the student in scientific medicine needs to acquire early and never let his vision turn away from it.

We may grant for the sake of argument that much that is printed under the title of "research" in our technical and surgical journals is of little value. But under the direction of our Universities and Foundations, which are adequately provided with facilities, the product from the various fields of research will have an increasing value. The necessity of having acquired in the pre-medical course a reading knowledge of several modern languages is especially felt by the student working in research laboratories.

However much the field of original investigation may be limited to a favored few, we cannot place too high an estimate on its importance in the advance of surgical knowledge. Through its enlightening results we have been able to acquire a more precise clinical understanding and facility in bedside analysis. And we should never lose sight of the value of clinical evidences, only gained by a carefully taken history and by the critical study at the bedside. No possible emphasis on laboratory study can obscure the even more emphatic necessity of a long, critical and patient investigation of clinical evidences learned only in the sick room.

One hears continually the criticism that a fatuous dependence has come to be placed on laboratory analysis and roentgenography, to the exclusion of the tried and tested clinical evidences which were formerly and should now be our chief reliance in physical diagnosis.

If this criticism is well founded it should only serve to make us better clinical students by giving us a keener understanding of the relationship and value of laboratory and clinical evidences. We are conscious of the fact that there has been a tendency to exaggerate the value of laboratory findings in a manner to overshadow the primary importance of clinical evidences which should confirm them.

The surgeon should make his own diagnosis. He should not depend upon the internist to do this for him. He should be broad enough in his technical training not only to appraise the value of the technician's report, but to pass upon the accuracy of the technical methods. Why should not a surgeon be as accomplished in chemistry and pathology as the internist? The excuse that he has not the time is only another way of saying he never learned how. He may no longer offer the lack of opportunity as an excuse. The modern student in surgery has every opportunity to acquire this knowledge and facility. He may not constantly require to exercise this privilege, but he does need to constantly exercise his critical review of laboratory reports and be able to interpret them with intelligence.

Much is being said and written about the postgraduate special training of the young aspirant in surgery. Nine years ago we were invited to discuss this subject before the American Academy of Medicine.\* We took the ground that, after

\* Postgraduate Degrees in Medicine. Bulletin American Academy of Medicine, December, 1911.



the medical degree and the usual hospital internship, special surgical training in the wards and operating room for a period of at least three years under the direction of a master surgeon, should be the minimum requirement for such a course. In order that proper credit should be given for this course, the degree of Bachelor of Medicine should be given to the under-graduate and after the hospital internship and a three year's special surgical course, the degree of Doctor of Medicine be conferred. A graduate thus specially trained should, after examination by a Federal official board of surgeons, be licensed to practice surgery in any commonwealth of the Republic without further examination. He should be thenceforth known as a surgeon and eventually be in line for fellowship in the American College of Surgeons. By this orderly, simple and scientific course, the young surgeon would have an instant orientation and standing. There could never be any question of the justification of his claim in announcing himself a surgeon, young though he might be and lacking in the maturer judgment which comes with a longer experience. It would be the natural ambition of this young surgeon to enlarge and embellish his training by teaching, and by travel, as privilege and opportunity permitted.

With such a course laid down as the curriculum for every student in surgery, the present chaotic state of the practice of surgery in America would not only be simplified, but the stamp of system, thoroughness and character would be given to the work.

Finally, to the time-worn criticism that a long course in medical training is too expensive for the average student, we may venture the reply that all education has steadily grown more expensive. A way will always be found by or for the student of brains and quality, no matter how long and difficult the course. And what medicine needs today is quality; the very finest type of intellect is none too good for the surgical demands of the period. We shall have done for humanity and for our guild the greatest possible service if we shall have maintained, with unfailing courage, the scholarship and training of the student on the highest intellectual plane.

#### MAGNET EXTRACTION OF FOREIGN BODIES WITH PARTICULAR REFERENCE TO THE IMPORTANCE OF ACCURATE LOCALIZATION.\*

By HANS BARKAN, M. D., San Francisco.

The removal of foreign bodies from the eye by some magnetic implement is not a modern manoeuvre, but was practiced in isolated cases and in very rough form in the middle ages. The accurate methods of removal and localization are, however, of fairly recent origin. Dixon of London in 1859 is first on record as having drawn from the posterior chamber through a scleral incision a part of a blade of scissors. In 1874 McKeown of Belfast, also through a scleral incision, removed

a foreign body with a specially constructed magnet.

The names of Snell, Sulzer, Schlosser, Hirschberg and Haab follow each other in rapid succession, each improving on some form of magnet until 1892 when the last named constructed his famous giant magnet which, with slight modifications, is still the most powerful magnet of them all.

The original method of removal, that of scleral incision for bodies posterior to the iris plane, was in consequence of Haab's magnet and its immense power, not very much used up to fairly recent years when it has again met with the approval of a number of eminent operators, and has been resorted to in most cases by them.

This paper will deal in the main with bodies capable of removal by some form of magnet, and chiefly with bodies posterior to the iris plane.

Every foreign body case is a law unto itself, but for purposes of discussion one can divide the cases rather didactically into a certain number of fairly well marked clinical groups: *1st*—cases seen early, 1 to 3 hours after injury with no visible infection; *2nd*—middle stage cases, 2 to 3 days after injury which again consist of two groups,—the eye not infected and the eye infected; and *3rd*—late cases, weeks or months after injury, again divisible into two groups,—the eye not infected, and the eye changed in its anatomy as the result of infection at the time of injury.

Without, for the moment, taking up the location of the foreign body, its size, its shape, the character of the wound, or the amount of vision remaining, we can discuss the clinical picture of certain early, middle and late stages. Cases seen very early, 1 to 3 hours, no signs of infection as yet, demand immediate removal. It is the practice of some men in these cases, to extract the foreign body through the anterior route by means of the most powerful magnet obtainable without waiting for localizing pictures on the theory that the sooner removed the less danger of infection to follow. This, while it has some points in its favor, in general, I think, is to be condemned. I do not believe that it at all influences the question of infection. If the piece has carried in bacteria, infection will take place no matter whether the piece be removed an hour after its entry or a number of hours afterward. Removing a piece of unknown size and uncertain location by main force exerted at the anterior pole of the eye does, in many cases, cause traumatic consequences which could well be avoided if a few extra hours were taken to accurately localize the piece and estimate its size and shape.

The middle stage cases,—2 to 3 days after injury, depend upon their immediate treatment as to whether infection has taken place or no. If an acute purulent infection exists, immediate primary removal of the eye is indicated. If no infection exists, none will take place and time can well be taken for accurate localization. If a subacute infection, mild iritis and cyclitis be present but no frank purulent process, the foreign body removal is indicated as soon as possible after localization. I have seen a number of such eyes, the subacute process dying down and

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

disappearing within 3 days after removal of the foreign body.

The late stage cases,—weeks or months after injury,—repay a careful study. In these especially, the localization of the foreign body and the character of it, are of importance. If the eye is quiet, giving no trouble, with the foreign body buried in the lens or, perhaps, deep in the posterior pole, possibly in the sclera, the foreign body, although casting a dense shadow, possibly very weakly magnetic as it may well be if iron ore, iron pyrites or iron silicide, it may be wise to leave it alone with due warning to the patient as to possible future complications, of course. If the eye in the late stage shows any evidence of shrinking, of cyclitis, slight ciliary tenderness and descemetitis, do not attempt removal, but enucleate. It does not pay to be sentimental about the preservation of an eye in this condition.

Let us turn to the question of accurate localization in any and all of these groups. What do we gain by it? In the first place it depends upon whether we are operators by the anterior route in every case (as is practically the case with Haab and his pupils), or whether we are operators by the anterior or posterior route depending upon circumstances, or whether we choose the posterior route on all possible occasions. In the first case localization, size and shape are of relatively little importance; in the last two cases they are of great importance. If we are to choose between anterior or posterior extraction we must know as the main decisive factor the size and shape of the piece, even more so than the accurate localization, except in so far as we naturally, must know whether the piece is in or out of the eye. A fairly large sized piece of smooth edges and of form approximating a square or circle will be easier to remove through the anterior route or through its wound of entrance than a long pointed or sharp edged sliver. A very small piece, no matter what its shape, may be more difficult, especially if located far back, to remove by the anterior route because of the well-known fact that the traction of the magnet varies inversely as the square of the distance; and broadly speaking, the larger the piece and the nearer it is to the magnet pole, the more certainly it approaches an easy extraction.

To the operator choosing by preference the posterior route, localization is, in the main, of importance in regard to whether or no the piece is to the temporal or nasal side of the mid-line, and whether it is superior or inferior to the horizontal plane. Its localization in regard to these facts decides the location of his incision. The size and shape of the piece are practically of little importance to him as his incision through the sclera should always be made a fairly liberal one, even with a small piece.

The damage caused by the entrance of the foreign body is another factor in considering the method of extraction. If the anterior structures be somewhat mutilated drawing the piece out through the same track will not cause much

more damage; it is the simplest and quickest, and may be preferred. If the anterior structures have been little injured and the piece be located posterior to the iris plane (which we are assuming in this paper) removal by scleral incision thereby obviating any danger of wounding the anterior structures is, to my mind, preferable.

The location in reference to certain anatomical subdivisions is also of interest and of particular importance. In this respect there are three main points: *First*—the piece is buried in the lens causing a partial or total traumatic cataract. The question of removal of such a piece has come up personally five times in the last year. Four of these cases were in young men; they were total cataracts with the rest of the eye in splendid condition. I advised removal of the cataract and foreign body although knowing that the piece in this location was of no danger to the eye, the main reason being the cosmetic improvement. These boys are looking for better positions as they get older and meet a tremendous handicap in their advance because of the white pupil which, to the employer, is a striking sign of one-sided visual defect. The extraction in these cases is extremely easy. There is practically no nucleus and with dilated pupil and the magnet in position over the operated wound, a clear, black, round pupil was obtained in all four cases. In the fifth case, a man of sixty, I did not operate. The man had held the same job for years (that of top-fitter in an automobile factory), a job he was well able to fill with monocular vision. He had some competence, so that even should he lose his position, he was not dependent and he had no higher position to look forward to.

I believe that in these cases especial consideration of the economic factors should play quite a decisive role.

The next anatomical point of interest is in cases of bodies buried behind the ciliary body. These should not be removed through the wound of entrance or through an incision made for purposes of removal through the anterior chamber. They are removed with much less trauma and reaction by the posterior route.

Finally, a very interesting class, bodies buried so far back that it is a question as to whether they are in or out of the eyeball. Of these cases I have had three interesting experiences all pointing to the same lesson, namely, that the fact that the piece moves with the movements of the eyeball does not absolutely mean that it is in the eye or even in the sclera. In two of these three cases pictures taken on the same plate with the eye moved from a straight position to an elevated one showed distinct alteration of position of the foreign body on the plate. In both these cases I attempted to remove the foreign body through a scleral incision and had the pole of the Hirschberg magnet in the vitreous not more than a few millimeters from the piece which in both cases was a large one and must have been magnetic from the history. In neither case was the piece attracted and both cases a year after the operative interference still had non-



irritated fairly useful eyes. These pieces, though they move with the movements of the eye, may be lying on the posterior aspect of the sclera or even slightly further back as the retro-orbital tissues two or three millimeters back of the eye have a certain amount of movement with the movement of the eyeball.

The usual scleral incision is made parallel to the inferior or superior border of the lateral rectus muscle with some form of conjunctival pocket or flap. I have in a number of cases pursued the following method which, except for one case where for some reason I was handicapped by excessive hemorrhage, has proved to be very satisfactory. Depending upon whether the body lies temporal or nasal to the mid-line, I expose the inferior edge of the internal or external rectus muscle by one or two deep cuts through the conjunctival and subconjunctival tissue with a scissors. A smooth non-magnetic hook is introduced around and under the inferior edge of the muscle and the muscle pulled upward exposing the sclera beneath the former situation of the muscle. A double arm suture is passed through the anterior portion of the conjunctival incision above and below, another one through the posterior portion. A knife incision fairly liberal in size for small pieces even (not less than 3 millimeters), is made directly into the exposed sclera in a direction parallel with the rectus muscle and underneath its former situation. The pole of the magnet is approached to this incision until it just touches. Should the foreign body not appear, the Hirschberg hand magnet is introduced very gently pointing in the direction of the piece and it is removed by this means. Immediately the assistant lets go of the hook and the rectus muscle slides downward covering the scleral incision completely. The two sutures are now tied, thereby again approximating the lips of the original conjunctival incision. I find this method an easy one to do successfully and without immediate complications in the great percentage of cases. The question as to whether retinal detachment is apt to occur is a very debatable one. Immediately, it certainly does not. Whether in time a certain percentage occur is hard to state. That some should occur is certain, but even then I do not believe that we cause more eventual visual disability than would be caused by the anterior extraction of large and sometimes jagged pieces.

In conclusion, we all realize that no subdivision or analytical table of foreign body cases and their treatment is of great value. Each case, as stated before, must be and is a law unto itself. But in a broad way, the clinical subdivisions as I have suggested them, may serve to lead men not frequently asked to perform magnetic extractions into a correct clinical point of view. The object of the paper will be fulfilled if it arouses among the ophthalmologists present a discussion and if it gives the non-ophthalmological readers of the Journal who may be called upon under certain conditions to perform foreign body removal, some basis for clinical judgment.

## RETROVERSIONS OF THE UTERUS.\*

By FRANK W. LYNCH, M. D., San Francisco.

The older teaching of Schultze that retroversions and retroflexions of the uterus were abnormal positions that invariably caused symptoms has been succeeded by the opposing view of Theilhaber. Nearly all agree at present that a uterus may be in any position, provided that it is movable, and that symptoms will not occur unless the organ is diseased or is associated with tubal or ovarian pathology.

Yet large retroposed uteri are so often the seat of metritic or vascular changes, and are so frequently accompanied by ovarian disturbances that the patient usually presents the complex symptomatology at one time ascribed to the uterine position. Such cases generally follow birth trauma. Occasionally women who have never been pregnant develop slowly a train of similar symptoms. The uterus gradually enlarges during a period of some years and the ovaries become swollen, cystic and tender. The symptoms disappear almost invariably after the uterus is suspended by a well chosen operation.

Largely because of misunderstanding Theilhaber's views, some men doing obstetrics follow their cases only for a few weeks after delivery. Others will not replace even a markedly retroverted uterus after childbirth on the ground that any position save actual prolapse is normal. The experience of most gynecologists indicates the contrary, at least to the extent that markedly retroverted uteri sooner or later undergo metritic changes. The majority believe that many symptoms can be avoided if the uterus is kept in the forward position.

I have long been of the personal belief that a woman's care during the year following delivery may be even more important than that during her pregnancy. Consequently we have undertaken a study of posterior displacements following childbirth, hoping to obtain a number of basic facts.

The material for our study has been obtained from the follow-up records of the Woman's Clinic of the University of California Hospital. We have made every effort to secure a complete series, yet it has not proven possible. We are following 95% of our operative material, but have not yet been able to convince women after childbirth that their subsequent condition may be a matter for their concern. The following observations are based on the pelvic findings and symptoms of 63% (761 cases) of 1225 women delivered in our clinic during the investigation. The findings have been well controlled for one year to four months following delivery.

We have arranged our data to show:

- (1) The frequency of retrodisplacements after discharge from the Maternity.
- (2) The comparative frequency of vaginal relaxations forceps, and parity in both the retroposed and non-retroposed cases.

\*Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

(3) The months when the uterus was found retrodisplaced.

(4) The percentage of symptoms in both the retroposed and non-retroposed cases.

(5) The result of pessary treatment.

(6) The frequency of pregnancy in the various groupings.

(7) Finally, we have studied the results of several types of suspension operations in a series of 120 non-inflammatory cases, followed post-operatively for periods from between six months and three years.

Few authors have studied the frequency of retrodisplacements after confinement, although all following Schultze agree that pregnancy and labor are the common etiological factors in retroversion cases presenting symptoms. Winter's figures alone bear upon our question. He found retroversions or flexions in 12% of 300 women between two and ten months after confinement.

In marked contrast we have found that 42.2% (322 cases) of our 761 patients returned some time during the year after their delivery in our service with a retrodisplacement. The proportion for 100 private cases was 22%. Eighty of these cases were considered in the tabulations.

Quite naturally we first studied the condition of the pelvic floor looking for etiologic factors. The results are not striking. The cases with relaxed vaginal outlets were divided accordingly as the uterus was forward or back. The cases with relaxed outlets were found to constitute 30% of the retroversion group and but 24% of the cases with uterine antifixion.

There were comparatively few forceps deliveries, only 7%, in the total series, possibly because so many women had vaginal relaxations. Yet it is of interest that forceps were used in 9% of the retroposed group and in only 5.7% of the cases where the uterus was forward. Naturally there were far more low forceps than higher applications but the same relative proportion holds for the mid and high forceps series. Yet forceps could not have been of much etiologic moment, since there were only 54 applications in 761 cases and there are 322 retrodisplacements for which we seek etiology.

We attempted to ascertain whether a larger proportion of the retrodisplacement group had had hard, trying labors but abandoned the study because of difficulties in making the comparisons.

We have studied our cases according to the parity, since it seemed reasonable to believe that a woman was more likely to develop a retroversion after many labors than with a few. Unfortunately the series has not run long enough to permit conclusions on this point. Yet there were 18 women in a series of 439 cases who had had from nine to fourteen children and in whom the uterus remained upright during a minimum observation of six months following the last labor. On the contrary, there were only two women in the 322 displacement cases who had as many as nine children.

We have divided our cases into the two groups, uterus forward or back, and arranged the cases

of each division according to the number of children they have borne. The similarity of percentage for the same parity of each group is most striking. Thus 41.4% of the normal position group had had one child, as did 41.3% of the retrodisplacement cases. This striking similarity continues until the women are IV para. Then it ceases since there are few women in the retroposed group who have had extremely large families.

Since retroversions occurred in 22% of 100 private cases, few of whom did their own housework, it seems likely that hard work may be an etiological factor for this type of displacement. Naturally we have had no means of determining the uterine position before the period of this study.

TABLE I.

Showing percentage of the two series for each parity.

	Uterus forward 439 cases	Uterus displaced 322 cases
Para I.	41.4%	41.3%
I-II	62.0%	61.8%
I-III inc.	74.8%	74.2%
I-IV "	83.8%	85.0%
I-V "	90.0%	92.0%
I-VI "	93.8%	97.2%
I-XIV "	100.0%	100.0%
Para I-IX inc.		

Patients reporting according to schedule return for examination six weeks, 3, 6, 9 and 12 months after delivery. Approximately three-fourths of the retroversions were discovered during the first four months. Eighteen per cent. were found during the second four months.

TABLE II.

Showing month after delivery when retrodisplacements were noted. Series of 322 cases.

Months	I.....	30.9%
	II.....	25.4%
	III.....	10.9%
	IV.....	9.4%—76.6%
	IV to VIII.....	18.1%
	VIII to XII inc.....	5.3%

The great question in displacements is the extent to which the uterine position may favor the development of pelvic symptoms. Naturally this refers especially to the marked retroversions of the third degree since lesser dislocations may recover their equilibrium. Our studies have brought out several interesting points. Seventy-six per cent. of the displacements were found in the follow up and presented only occasional and slight symptoms, most frequently referable to vaginal relaxations. The other 24% came in because of symptoms. The complaints which developed early were usually concerned with metritis or subinvolution. The cases coming later in the year had more complex disturbances. In marked contrast only 8% of women with normal uterine position complained of any symptoms in spite of the fact that 24% of this series had considerable vaginal relaxation.

Fifty-six per cent. of the retroversions presenting symptoms were found during the first three months, 22.5% in the second quarter, 14% between six and nine months and 7% came in with symptoms developing in the last quarter of the year of their last delivery.



TABLE III.

Month in which symptoms developed. Seventy-one cases of retrodisplacement.

Months I.....	20.0%
II.....	30.0%
III.....	6.3%—56.0%
IV to VII.....	22.5%
VII to X.....	14.0%
X to XII inc.....	7.5%

We attempted to correct all cases of retrodisplacement and to insert pessaries when possible. The position was not corrected in 109 cases either because the uterus could not be brought forward without gas anesthesia for which the patient failed to return or because the vaginal floor was too relaxed to hold a pessary. Douches and tampons were advised for the subinvolution cases and kneechest positions were prescribed for all.

The position was corrected and pessaries were placed in 144, as well as in 22 other cases in which they could not be worn for various reasons. Only 89 of the 144 cases have been accurately followed. The others were lost for the purpose of this study although a few are considered in the paragraph on pregnancy. Orthopedic cures were obtained in 80% (71) of the 89 cases followed, so that the pessary could be removed without the uterus returning to retroversion. The uterus would not remain forward in six cases after the removal of the pessary. Operation was advised in these six cases and performed in three, cervical or vaginal repairs being done at the same time. Eight of the 22 cases in whom the pessary failed to hold came subsequently to operation. Two others returned many months later with the uterus in proper position.

There were 71 women who returned during their child's first year with pelvic symptoms. Three presented evidences of tubal infection and were consequently excluded from the series. Replacement of the uterus followed by pessary treatment gave complete symptomatic cure in 73.5% (50 cases) and partial cure in 15% (10 cases). Pessaries could not be used in the other eight cases. These came to operation.

It is most difficult to draw conclusions, based upon subsequent pregnancy, as to whether women with retroposed uteri are less likely to conceive. The series of 761 cases is comprised almost without exception of married women since the illegitimate in the larger series would not return for observation. The series was closed in January, 1920. Pregnancies were observed in 15% (65 cases) of the 439 women who did not have retrodisplacements. There were only 10% (32) of pregnancies in the women who had had posterior uterine positions. The great majority of these occurred in women who had been treated and had worn or were wearing a pessary. Three women who never had the position corrected became pregnant as did three others whose treatment had not been completely satisfactory. One came back with an early pregnant uterus prolapsed over the pessary, and two others presented with pregnancy and reposition although the uterus had been up in place when last seen. There were 109

cases in this group giving an incidence for pregnancy of less than 5%.

During the period of this investigation 120 marked retroversion cases have been operated in this clinic without death. We have followed all the patients for periods varying from six months to three years. There was no case of pelvic inflammatory disease in the series. The uterus was movable in all instances, although the majority of cases presented mildly diseased ovaries. The appendix was removed in all cases and vaginal repair work was done in nearly all.

We have thought it worth while to report our anatomic results since there are comparatively few complete studies of such series in America. The majority of authors have lost sight of a considerable proportion of the cases operated. Especially does this report seem advisable since more than 130 retrodisplacement operations have been described, all of which are advocated as the best procedure.

Forty-five Webster suspensions have been done, with recurrence demanding pessary in one case. One case came back with a retroversion following a Neisser inflammatory, and was later re-operated conservatively. Twenty-eight Coffey operations were performed without recurrence. Twenty-seven Kelly Neel operations were followed by four recurrences, two of which were operated and two were treated by pessaries. Ferguson operations were performed four times, as were sixteen atypical operations in which the fundal insertion of the round ligament was advanced. There were no recurrences in this group. We are reporting the subjective results in another paper.

Six recurrences in a series of 120 cases is undoubtedly a high percentage when non-absorbable sutures have been used as a routine, and when the apposition of broad serous surfaces have been attempted in all cases. We have investigated the series carefully and feel that we have found the usual reason for failure in round ligament operations that have been performed with non-absorbable sutures.

The round ligament operations now performed fall into three great classes.

1. Those which refix the shortened ligament in the inguinal canal, as the Alexander and its modifications.

2. Those which elevate the uterus by attaching the round ligament either to or through the abdominal wall, as the Oshausen and the Gilliam suspensions, and their modifications.

3. Those in which a new round ligament attachment is created on the uterine fundus, as in the Coffey, Webster, and the atypical series of our series.

The round ligament was not designed by nature to hold the fundus forward save in pregnancy. The structure varies considerably in size and strength as may be seen from observations in a series of cases, but its weakest point of attachment is usually in the inguinal ring. Unfortunately the uterine insertion in the chronic retroversions often slips down from its original high point

of fundal attachment, so that a forward pull on the ligament will no longer bring the fundus up in ante flexion. The point of pull in these cases is often just above the cervix so that the organ comes forward as a whole with the cervix really anterior to the fundus. The success of the Webster and Coffey operations is due to the new and higher fixation of the uterine end of the ligament. The failures appear to result from a weak insertion in the inguinal canal. The Alexander group fail so often because the uterine insertion has slid down, as did the Kelly Neel cases which we subsequently inspected.

It follows, therefore, that the surgeon should carefully consider the character of both origin and insertion of the ligament before choosing the type of his operation. He may find it necessary to advance the uterine origin as well as to strengthen the insertion in the canal, as we have done for several years.

Our experience is showing that the uterosacral operation as usually performed through the abdomen merely shortens the peritoneal fold and does not reach the strong portion of the ligament. The well developed part of the uterosacral which can be seen from above is on the uterine side. Yet when this portion is shortened, the pull is widespread and scattered out toward the mesentery since there is no fixation of the upper fascia on the sacral side. Four cases inspected at second operation showed that the procedure had been quite useless. The silk stitches were high up on the cervix and enshrouded in filmy adhesions. There was no vestige of a new ligament.

The behavior of the ovaries following various types of suspensions has been a matter of some concern. Ovaries in long standing retroflexions commonly develop symptoms. Many men forgetting this point state that ovaries are more apt to give trouble after certain types of operation. Our records show that one or both ovaries were enlarged and tender in eight of the 45 Webster suspensions, in five of the 28 Coffey's, in seven of the 27 Kelly Neel's and in four of the 20 Ferguson and atypical cases. The swelling and tenderness eventually disappeared and no case has required subsequent operation.

We cannot properly discuss the question of pregnancy following operations since only 7 women in the 120 have yet become pregnant. Their pregnancies total 11. Two women were aborted because they became pregnant immediately following operation. They have since borne children. There was one pregnancy in the Coffey group, six in the Webster and four in the Kelly Neel group, one of which miscarried. Two women in the Webster group have had two children each, since operation. There were no dystocias in the series and there has been no recurrence of the displacement.

It seems reasonable to present these conclusions:

1. Forty-two per cent. of retroversions were noted in 761 cases observed from 12 to 4 months following their delivery.
2. Seventy-six per cent. of the 322 displace-

ments presented slight or no symptoms. Twenty-four per cent. came back because of symptoms. Eight per cent. of 439 controls with upright uteri complained of slight symptoms.

3. Twenty-two per cent. of 100 private cases presented displacements. Hard work may be an important etiologic factor for the displacements.

4. Replacement and pessaries caused anatomic correction in 80% of the cases which wore pessaries. Pessaries were not applicable in 15% of cases selected for such treatment. Replacement and pessary treatment resulted in symptomatic cure and anatomic correction in 73.5% of cases presenting symptoms.

5. Subsequent pregnancies were noted during the period of study, or following, in 15% of 439 cases who did not have displacements; in 10% of women who had treated or untreated retrodisplacements; and in 5% of 109 cases whose retroversion had not been corrected.

6. No one type of operation has been entirely successful in our hands. There were two recurrences in 89 operations which made a new round ligament fixation upon the uterine fundus (45 Webster's, 28 Coffey's, 16 atypical). There were four recurrences following 27 Kelly Neel suspensions, together with shortening the uterosacral ligaments. Since operations have not proven 100% perfect, the need of early pessary treatment is readily apparent.

#### NOTES ON PATHOLOGICAL REFLEXES.\*

By THOMAS G. INMAN, M. D., San Francisco,  
Assistant Clinical Professor of Medicine (Neurology),  
Stanford Medical School.

It is sometimes a very difficult matter to determine with certainty whether a disturbance of function in the nervous system depends upon actual structural change in nervous tissues or whether such disturbance of function is but one of the protean manifestations of so-called functional disease. To settle this point is the first objective of the neurological examination, no conjecturing as to the probable nature of the disorder being justified until that end is attained. Among the signs usually credited with giving positive proof that structural change has taken place in the central nervous system, the pathological reflexes have been given a position of the first importance. Properly elicited, these reflexes certainly denote, in a great majority of cases at least, abnormal action in some part of the cerebro-spinal axis, usually of the cortico-spinal bundles, the so-called pyramidal tracts. Indeed, it is so generally believed that these abnormal reflexes denote disturbance of function in these tracts that they have been considered as the most reliable of the pyramidal signs. Instances occur, however, in which some of these signs are found with satisfying completeness in conditions in which the central nervous system appears intact, but where the neuro-muscular system is at fault.

Since the observations upon which this paper is founded were concerned mainly with the Babinski,

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.



crossed adductor, Bechterew-Mendel and Rossolimo signs, these only will be considered here.

The most dependable of these pathological reflexes is the great toe sign of Babinski. It is best obtained by gentle forward stroking of the outer border of the plantar surface with a blunt instrument, but in cases in which skin sensibility is decreased, whether normally, in comatose conditions, or where there is an associated peripheral sensory disturbance, the sign is best obtained by the more vigorous use of a sharper instrument. A slow continuous dorsal excursion of the great toe with an outward and downward fanning of the smaller toes is to be considered as the ideal pathological reaction and may safely be assumed to indicate implication of the pyramidal cortical cells or their fibres leading to the anterior horn cells supplying the muscles of the toes. The lesion may be exerting its influence either upon the cerebral motor cortex or on the pyramidal fibres at any point between the cortex and the lumbar enlargement in the cord.

The crossed adductor response elicited on percussion of the patellar tendon or of the adjacent subcutaneous bony surfaces about the knee, is, properly interpreted, a pathological sign of considerable value. First described by Pierre Marie and later exploited by Lewandowsky, this sign serves to attract attention to beginning pyramidal tract disturbances. It occurs early in central affections, is frequently present in beginning arteriosclerotic changes in cord and brain, and as a hold over from past inflammatory changes in the central nervous system or the meninges. Care must be taken not to mistake mechanical agitation of the adductors for a true contraction.

Described by Von Bechterew in 1902 and independently by Kurt Mendel in 1904, the reflex obtained by percussion of the dorsum of the foot at the junction of the cuboid with the outer metatarsal bones, is now known as the Bechterew-Mendel reflex. In health there is a dorsal extension of the smaller toes. A reversal to a plantar flexion is characteristic of the pathological form of the reflex and denotes a central disturbance when the exceptions noted below are excluded.

The Rossolimo sign is obtained by sharply tapping the plantar surfaces of the terminal phalanges of the second, third or fourth toes with the percussion hammer. This is followed by a plantar flexion of the smaller toes in pathological conditions.

It may be accepted without reservation that the occurrence of one or more of the above described pathological reflexes is indicative of a disturbance in the physiological balance normally existing between flexor and extensor muscles. When first described they were believed to be due only to conditions affecting the pyramidal tracts, but later observations have shown that they may occur in peripheral disturbances, such as neuritis and muscular atrophy due either to neuritis or to disuse.

In the routine neurological examination of more than nine hundred patients entering St. Luke's Hospital under the group study plan, the presence of these reflexes called attention in a number of instances to unsuspected implication of the nervous

system. Where there was no other evidence of pyramidal involvement Bechterew-Mendel and Rossolimo signs have been noted in beginning sciatic neuritis, as the first demonstrable signs in post-diphtheritic neuritis and in muscular atrophy from disuse. In one case of old healed tuberculosis of the hip, these two signs were present in the affected member, probably as a result of a compensatory disturbance in the ratio normally existing between flexors and extensors.

The presence of one or more of these abnormal reflexes is conclusive evidence that structural changes are being dealt with. This fact having been settled, the next step in the examination is taken with the object of determining by the customary well-known methods whether the lesion is central or peripheral.

## RECONSTRUCTIVE SURGERY OF THE SHOULDER.\*

By JOHN C. WILSON, M. D., Los Angeles.

The greatest values of military surgery are their practical applications to civil life. Whereas the average man will see many cases of a certain type during his lifetime, the opportunities for observation are increased many fold by such an international holocaust as the one we have just passed through. Functional reconstruction of the shoulder has been much discussed. Arthroplasty has had its exponents, shoulder joint resection has had its merits extolled and arthrodesis has been commended, but no definite unification of opinion has followed concerning them until the tremendous number of cases in which the shoulder joint had been damaged were available for study during this war.

If we stop to analyze the movements of the shoulder necessary in ordinary function we will see that practically every one is associated with a moderate amount of abduction. The mechanism of abduction is in itself an interesting study, for its perfection seems to depend upon the synchronous action of two forces, neither of which will operate without the other. The abductors of the shoulder are two in number, the supraspinatus and the deltoideus muscles. From the study of several cases with proven rupture of the supraspinatus tendon it would seem that abduction is initiated by this muscle, and completed to a right angle by the deltoid. The attachment of the supraspinatus tendon is uppermost on the greater tuberosity of the humerus and destruction of this muscular insertion will impair shoulder joint function. Should the resection of bone not be extensive and should the muscles of the shoulder be very well developed, a movable joint that is considered by some to be preferable, may be secured, provided the arm is kept in abduction and muscle training carefully carried out.

In a large number of cases fixation at the shoulder with the arm abducted 55 to 70 degrees and the elbow anterior to the coronal plan of the body will give the best results except when the humerus has been appreciably shortened. For

\* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

these individuals a point must be found where the hand can be brought to the mouth with greatest ease. The object in fixing the arm in a position of abduction is to allow the scapula to assume the functions of the shoulder joint, which it will do provided it is in its normal position and is freely movable.

The majority of cases requiring fixation had extensive destruction of bone and occasionally it did

not seem practicable to shorten the arm sufficiently to allow the humerus to be imbedded in the glenoid cavity. If the humerus is to be fixed in this way, the best approach is by the incision of Codman, or if the deltoid is not active, through this muscle.



Figure No. I (Case III). This photograph, taken before scar excision, shows the small pedicle by which the upper extremity remained attached to the trunk.



Figure No. II (Case III). Massive autogenous bone transplant which was used to repair the defect and stabilize the arm in proper position.



Figure No. III (Case IV). (From the Massachusetts General Hospital.) Enchondroma involving the anatomical and surgical necks and tuberosities of the humerus.



Figure No. IV (Case IV). (From the Massachusetts General Hospital.) The enchondroma has been excised and the bone defect repaired by transplantation of a part of the fibula.

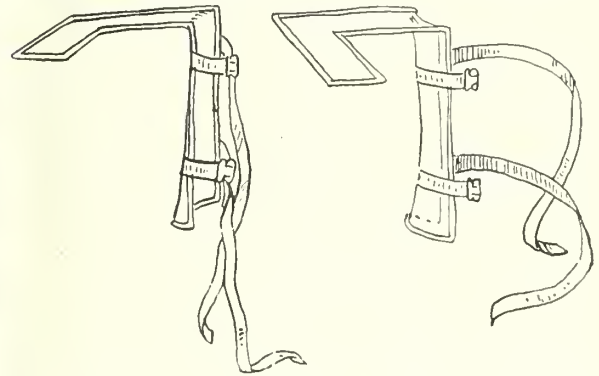


Figure No. V. This drawing illustrates a practical type of abduction-splint that will be found to be both light in weight and efficient.



Figure No. VI. This drawing illustrates the position of the abduction-splint when properly applied.



The end of the humerus is refreshed, the glenoid cavity deepened and the bones approximated and fixed by kangaroo tendon. Ankylosis may be further assured by partially sawing through the acromion process and depressing it into a prepared groove in the humerus as has been recommended by Sir Robert Jones. When the humeral defect is so great that implantation of the humerus in the glenoid cavity is not desirable, transplantation of bone may be used. The massive transplant will probably give the best results.

#### CASE I.

This patient is a Cherokee Indian, twenty-six years old, who accidentally shot himself in the left shoulder with a revolver. Infection followed and he was treated at the base hospital for five months or until September 13, 1918, when he was transferred to General Hospital No. 6. At this time there was a draining sinus opening on the outer aspect of the shoulder. The arm was tied down at the side and any attempted active or passive motion was painful. The X-ray shows a shadow in the humeral head which was supposed and which afterward proved to be bismuth paste. September 29th the infected head of the humerus was removed, care being taken to protect the muscular attachments in every way possible. The arm was put up with a little extension and complete abduction. Active motion was begun early. November 1, 1918, the wound was healed and the abduction and extension has continued. This patient was under observation until March, 1919, and he had a movable shoulder, movable in so far that it could follow the other arm when holding a shovel, broom or pitchfork, but abduction could not be initiated and as a unit it was not a useful member.

#### CASE II.

This patient was an officer in the Fifty-eighth Infantry, who received a shell wound of the right shoulder in action July 18, 1918. The wound was freely drained four days later and, August 12th, the head of the humerus was removed. October 1st the wound was healed. Examination on January 7, 1919, revealed a flail shoulder that did not allow abduction or the hand to be brought to the mouth. Fixation by embedding the humerus in the deepened glenoid was done on February 13, 1919, and the arm put up in abduction in plaster. Plaster fixation was discontinued in September and at this time the ankylosis seemed firm. Two weeks later the arm could actively be abducted to 75 degrees by scapular movement and the hand could be brought to the mouth readily. The patient, responding to an inquiry concerning his present condition, states, on April 24, 1920: "The result has been most gratifying and I must admit that I can use a stiff joint lots more than I had hoped for."

#### CASE III.

This patient had a gunshot wound of the right shoulder, incurred in action in July, 1918. Two days later the wound was cleansed and fragments of bone which amounted to the upper one-third of the humerus were removed. November 10, 1918, the wound was healed. Examination on January 5th showed a useless arm that was attached to the shoulder by a very slender pedicle containing the cords of the brachial plexus and the brachial artery and vein. In March, 1919, the scar tissue was excised to prepare a bed for a bone transplant a month later. The graft was massive, comprising about one-third of the tibial shaft so that danger of fracture of the graft could be eliminated. This graft was driven into the split humeral shaft and embedded in the glenoid cavity, the arm being in abduction with the elbow slightly posterior to the coronal plane of the body because of the shortening of the arm. Fixation was maintained until October, when ankylosis at the shoulder seemed solid and the arm could be abducted voluntarily nearly to a right angle.

#### CASE IV.

This case is from the Massachusetts General Hospital clinic and is a woman thirty-eight years of age, with a rapidly growing enchondroma of the humerus. The size of this tumor required resection of the head and upper one-fourth of the shaft. The defect was repaired by transplantation of the fibula without fixation at the shoulder joint. Although this patient was not followed for a great length of time, the result did not promise to equal the cases that were fixed at the shoulder joint to allow abduction by the scapula. This case is presented to show that the principles worked out in military practice have their application in civil surgery.

Abduction is a golden rule to follow in shoulder joint injuries, even though ankylosis is not the ultimate aim, for by so doing adhesions and scar tissue around the capsule and subdeltoid bursa are more easily controlled. Many painful shoulders tied down to the side will be avoided and disabilities from this cause will be reduced to a minimum.

As an aid in this direction I wish to present a splint that was devised by Dr. Clarence Jacobson of Chicago, one of the orthopaedic men of General Hospital No. 6, that proved to be very practical. Its efficiency lies in two things, the simplicity and curved transverse bar over the iliac crest. This splint may be made of  $\frac{3}{8}$ -inch round Bessemer steel wire and is easily covered with canvas. Two straps are passed around the body for fixation.

Reference: Jones, Sir Robert; Surgery, Gyn. & Obst. 1920, XXX, No. 1.

Discussion opened by Dr. James T. Watkins, San Francisco. Discussed by Drs. Charles Le Roy Loman, Los Angeles; John Dunlop, Los Angeles. H. H. Dignan, San Francisco; Lionel Prince, San Francisco; M. Miller, Los Angeles; W. B. Coffey, San Francisco.

### ELECTROCARDIOGRAPHIC STUDIES OF THE HEART\*

By ROLAND B. TUPPER, M. D., Fresno

The electrocardiograph is string galvanometer arranged so the deflection of the fibre can be magnified and recorded on a moving photographic film. Thus the electrocardiograph permits us to register the electrical action currents that arise in the heart muscle during the excitation that precedes contraction of the various chambers of the heart.

The typical or normal electrocardiogram is as follows: P wave, auricular in origin, is a small upward wave. This is followed by short pause, not longer than 0.2 second in time, then a downward wave, Q, is at times noted, after which a high upward wave, R, followed by a second small downward wave, S, and then the upward wave, T. Occasionally a small broad upward wave follows T and is termed U. Finally a long pause ends the cycle and terminates at P wave of the next cardiac cycle. The Q, R, S, T complex corresponds to the excitation of the ventricles. The Q, R, S interval should not be longer than  $\frac{1}{8}$  second in duration.

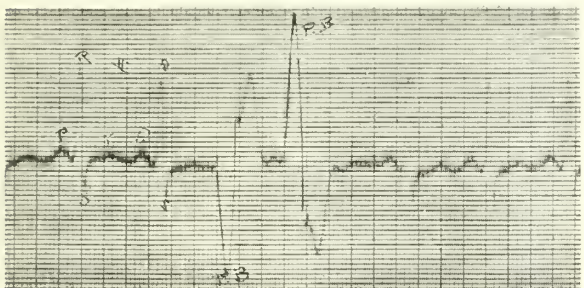
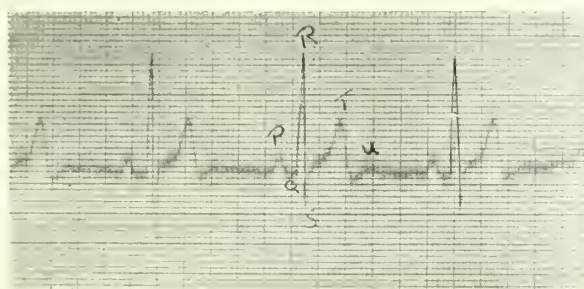
The interpretation of the cause of the various waves is far from being a certainty.

It seems fairly certain that the action currents begin during excitation of a part and before its

\* Read before the Forty-ninth Annual Meeting of State Medical Society, May, 1920. Material obtained from Diagnostic Section, St. Luke's Hospital Clinical Club, San Francisco.

actual contraction. The first electrical deviation in the ventricular complex of the electrocardiogram occurs about 0.03 seconds before the first sound of the heart occurs. The electrocardiogram precedes the contraction of the anterior wall of the ventricle by 0.03 seconds and the R wave has been finished for 0.65 seconds before there is a rise in the intraventricular pressure.

The P wave is the Auricular complex. The P-R interval corresponds to the conduction time of the Auriculo-Ventricular Bundle of His. The excitation reaches through the Purkenjie System numerous spots in the wall of the ventricle almost simultaneously. Should the excitation of the ventricle occur first near the heart's apex, there is a well-marked Q depression but should some other portion of the ventricle be first excited, the Q does not appear. The R wave is evidence



of the predominance of the excitation, at the moment, in the wall of the right ventricle and at the base of the heart, while the subsequent S depression points to a temporary predominance of excitation in the left ventricle and in the apical region. The interval between (Q, R, S), and T and the T wave itself, correspond to a period in which the whole musculature of both ventricles is excited. Should the base of the heart remain excited longer than the apex, the T wave in lead III is directed upward while if the apex remains longer excited than the base, the T wave in lead III is directed downward. According to Kraus and Nicolai, the R wave depends upon activity of the papillary muscles and the T wave is due to activity at the base of the heart or Conus Arteriosus.

Fredericq believes that the form of the electrocardiogram is due to a peculiarity of the heart muscle and that it may be obtained by registering the currents from an isolated strip of heart muscle.

Florence Buchanan believes that the R wave

is due to a slight asynchronism between the two ventricles.

Straub and Hoffman say that the electrocardiogram is not the result of the excitation process alone, but depends also upon the contraction process and upon metabolic changes.

There are certain physiologic variations of the electrocardiogram as follows: P wave arising in the normal pacemaker is positive. Occasionally it is bifurcated. Q depression is not constant. It is usually better marked in lead III than in lead I and II. R wave—always the highest but subject to variations in height. S depression—usually best marked in lead III and most indistinct in lead I. T wave is variable in height and breadth. Positive in leads I and II but may be negative in lead III.

P-Q interval 0.2 seconds in duration (Alpha)

Q-R-S interval  $\frac{1}{8}$  " " " " " "

S-T " 0.28 " " " " (Beta)

T-P " varies as to rate of the heart (Gamma)

In the pathologic states the electrocardiogram gives evidence in (1) The relative preponderance or size of the chambers of the heart. (2) Position of the heart. (3) Disturbances of the rhythm of the heart.

I. The relative size of the right and left sides of the heart has been established by the electrocardiogram.

II. It is only in true dextrocardia that we get the P, R and T waves as depressions and not in displaced hearts from some mechanical reason.

III. In abnormal rhythms we get:

a. Premature Beats.

1. Ventricular in origin.
2. Auricular in origin.
3. Nodal in origin.

b. The Paroxysmal Tachycardias.

c. Auricular Fibrillation.

d. Auricular Flutter.

e. Heart Block.

1. Sino-Auricular.

2. Auriculo-Ventricular.

3. Arborization.

a. The electrocardiogram in Premature Ventricular Beats has no P wave preceding it but is followed by a compensatory pause. The wave due to the premature contraction does not assume the usual ventricular type (Q-R-S and T complex) but is a large diaphasic wave simulating the wave form when a skeletal muscle is stimulated by an electric current. The direction that the first part of the extrasystole curve takes indicates in which ventricle the impulse originated. Insert Fig 2

b. The picture shown in Auricular Premature Beats reveals simply an early normal form of all the waves. If P originates other than in the pacemaker it is modified.

c. In Nodal Premature Beat the P wave is uncertain but a retrograde stimulation has occurred. The R-S-T complex does not differ a great deal from normal.

d. If one remembers that Paroxysmal Tachycardia represents a series of Auricular or Ventricular Premature Beats arising from an ectopic



single focus either in the wall of the auricle or ventricle, it will not be necessary to describe the electrocardiogram as found in this condition any further.

e. In Auricular Fibrillation the ventricular complex (R and T wave) marks each ventricular contraction, and the unequal spacing of the R wave certifies to the irregularity of the rhythm. The R waves are of different height indicating that the ventricles do not always contract in the same manner. P wave is absent because there is no distinct co-ordinate auricular contraction.

f. The electrocardiogram in Auricular Flutter shows a regularly placed P wave in time, size and form. The rate of the auricles is over 200 and that of the ventricles one-half, one-third or one-quarter that fast.

g. The electrocardiogram in Sino-Auricular Block shows a complete drop of the Auricular and Ventricular complex.

h. In Auriculo-Ventricular Block the electrocardiogram tells the exact time delay of the conduction through the Bundle of His or whether there is complete dissociation between the auricular and ventricular rhythms. The P-(Q or R) interval gives us the date.

i. The electrocardiogram in Arborization or Intraventricular Block is very interesting and instructive. There is a regular rhythm with the normal P wave and the normal P-(Q or R) interval. The Q-R-S interval is over  $\frac{1}{8}$  second in duration and the ventricular part of the curve does not exhibit the features of the normal supra-ventricular stimulation. Of late the S-T interval, if over 0.28 of a second, is considered by some to indicate delayed conduction within the ventricle. The electrocardiogram tells us which branch of the intraventricular conduction apparatus is blocked.

The electrocardiogram denotes which side of the heart is hypertrophied the greater. Thus, if the R wave is highest in lead III and the S depression is longest in lead I, a Right Ventricular Preponderance exists, and when R wave is highest in lead I and S depression deepest in lead III a Left Ventricular Preponderance is present.

It is quite evident, then, that the electrocardiogram has clarified the normal irregular cardiac rhythm, Sinus Arrhythmia as well as the pathological arrhythmias, Premature Beats, telling us where the impulse arises; Paroxysmal Tachycardia, also telling us the type, whether auricular or ventricular in origin, or whether Auricular Flutter is the underlying cause. Again, Auricular Fibrillation is now well understood, thanks to the electrocardiograph, and now there is no doubt when a slow pulse is found, clinically, to demonstrate and analyze such bradycardias whether a partial or complete auriculo-ventricular block exists or not; and, lastly, informing us in the decompensated cardiac cases whether there is an arborization block in the ventricles and thus helping us to prognosticate somewhat.

The electrocardiogram gives us which ventricle is preponderant over the other, thus telling us the

comparative hypertrophy. The increased height of the P wave as found in mitral stenosis with auricular hypertrophy is interesting.

Also, that Digitalis acts on the musculature of the heart itself and not through the nervous system has been determined by the electrocardiograph. 210 Post Street, San Francisco.

### CONTROL OF TUBERCULOSIS.

By PHILIP P. JACOBS, Ph.D., Assistant Secretary  
National Tuberculosis Association, New York.

A few years ago certain enthusiastic devotees of the tuberculosis campaign were advocating the elimination of tuberculosis from certain communities within a period of five, ten or fifteen years. Much has been learned concerning the universality of infection with tuberculosis during the last five or six years and the optimism of the earlier days of the campaign against tuberculosis is giving way to dogged determination not to endeavor to eliminate tuberculosis within a few years, but to control the spread of the disease, as has been done with certain other infectious diseases.

It is, therefore, of value to consider some of the principal factors in the control of tuberculosis that are at present basic to any well-grounded tuberculosis campaign. If I were to select from the field of tuberculosis endeavor the most important principles upon which one might establish a program, I would choose the following five:

1. The discovery of the cases of tuberculosis and the reporting of these cases to the health authorities. Fundamentally, any campaign that seeks to prevent communicable disease must be based upon a knowledge of the whereabouts of the cases, which knowledge shall be available for purposes of control in one centralized organization with sufficient power to act. This is the first principle of epidemiology.

2. The facilities for the care and instruction of curable cases shall be adequate and shall be properly equiped and maintained. It goes without saying that if even a minor percentage of tuberculosis is curable, it pays to cure this small percentage.

3. The segregation of the infectious and communicable case is vitally necessary.

4. The education and treatment of the non-infectious case by dispensaries, nurses, etc.

5. Education of the general public; first, with regard to the nature and prevention of tuberculosis, and, secondly, in the knowledge of how to maintain a strong resistance against disease.

The National Tuberculosis Association, operating through a state organization in each state and more than 1,000 local associations in the larger centers of population, is building its campaign upon these five principles.

The support of the National Association and its affiliated agencies comes almost entirely from the sale of Tuberculosis Christmas Seals, which will be held this year from December 1 to 11. The control of tuberculosis has for the last decade and more been intimately associated with the little holiday sticker. The continuance of this effort and further progress of the Crusade of the Double-Barred Cross, the international emblem of the fight against tuberculosis, demand the loyal support of physicians and laymen everywhere. One way to support the movement is to buy Christmas Seals this year.

## Book Reviews

**Nursing Mental Diseases.** By Harriet Bailey. 175 pp. N. Y.: Macmillan Company. 1920.

This is a brief exposition of psychiatry for the use of nurses. After a short psychological introduction there is a history of the treatment of the insane, followed by consideration of psychiatry as a whole, and then specific instruction about the various disease groups. The book closes with short chapters on the Binet-Simon tests and Hydrotherapy. Here and there through the book are selected bibliographies for those who wish to pursue the subject further.

**Diseases of Women.** By Charles M. Green. 466 pp. Illustrated. Boston: W. M. Leonard. 1920.

This volume is arranged with the idea of presenting to students the subject of gynecology by making use of well written case histories. There are five sections covering: (1) Infancy and childhood, (2) Puberty and adolescence, (3) Maturity, (4) the climacteric, (5) Anility. Each section is divided into, Introduction, Functional Disorders, Malformations, Infections, Traumata, Neoplasms, and Illustrative cases. The divisions are further subdivided where indicated.

The author has been able, due to his wonderful experience, to cover the subject thoroughly. The case histories are illustrative of nearly every type of gynecological ailment. They are clear, well written and the subject illustrated is ably discussed especially regarding diagnosis and choice of treatment.

The volume can be highly recommended as a valuable aid in teaching diseases of women.  
—H. A. S.

**After-Treatment of Surgical Patients.** By Willard Bartlett. Two volumes. 1066 pp. Illustrated. St. Louis: C. V. Mosby Company. 1920. Price, \$10.00.

The author has drawn on the material and statistics of Rochester, Cleveland, Baltimore, and St. Louis for the subject matter in the two volumes of his work on the post-operative care of patients. The first and larger volume is devoted to the general consideration of routine technic in the management of operative material and the handling of general subjective and objective sequelae to surgical intervention such as sleeplessness, headache, hiccup, backache, shock, hemorrhage, fat embolism, ileus, decubitus, etc., etc. The subject matter is well presented and embraces most of the routine measures with some special means for the handling of the cases. It seems quite valuable that we should have, in accessible form, this fairly comprehensive digest. A reading of this part of the work can not fail to bring back to mind many valuable data to the surgeon's armamentarium and to add quite a few new and useful ones. The wealth of information provided indicates an attention to detail in the care of surgical patients from which the patients can not but benefit. Symptomatic treatment surely finds a congenial field when the welfare of the patient in the post-operative period is to be promoted. This book can add much to the resources of any surgeon, no matter how experienced.

The second volume is occupied in the more detailed consideration of the management of surgery of the special organs and tissues and presents many of the approved methods of technic directed to the obtaining of operative results that should promote comfort and well-being in the patient and a maximum of disability and discomfort.

While the field covered is extensive, one is

struck by the wealth of excellently applicable and reliable measures advocated and the simple and direct manner in which the subject matter is written. The special value of the whole work may be summed up by saying that, as in every other field of human endeavor, a constant and persistent attention to detail, together with a facile resourcefulness, are bound to crown one's efforts with the greatest measure of success. G. H. T.

## Correspondence

### COUNTRY GENTLEMAN BELIES THE NAME

San Francisco, Calif., Nov. 3, 1920.

To the Editor:—

In the Country Gentleman, October 16, 1920 is an article by Albert Payson Terhune, entitled "Vivisection."

This article is one of the most scurrilous and misleading pieces of political propaganda ever printed. It is an unjust attack upon the Medical Profession of the entire world. It is a fanatical misrepresentation of facts.

Alleged quotations from the work of Magendie, Dupuytren, Sir Charles Bell and Claude Bernard are made as representing current practice of vivisection by the members of the medical profession of the present day. Most atrocious and uncalled for mutilations of dogs are also alleged. The entire article, if it were not for the appeal which it makes to the sympathies of the uninformed, might be passed over as ridiculous.

It would seem that this article calls for editorial comment on the part of every decent medical journal in the world. Especially does this seem advisable, because the editorial management of the Country Gentleman refuses to print a reasonable reply to Mr. Terhune's unreasonable and unjustifiable attack on the Medical Profession.

Yours respectfully,

ETHAN H. SMITH.

### VERBUM SAP

San Francisco, Cal., November 10, 1920.

To the Editor:—

Surely every physician must agree with me that intolerance and fanaticism are always condemnable and always anew ought to be kicked into the darkness and tyrannical misery from where they originate, and from where always anew they try to emerge. Intolerance is an abomination no matter if displayed by Chinese, Mohammedan or so-called Christian-Puritan narrow-mindedness, and bigotry; yes, even when brutally paraded by some medical committee long on authority and short on justice.

When the writer of these lines came to California in 1892 he soon found that it was unethical to consult with homeopathic and eclectic physicians. Was this a good rule? Or was intolerance that drove many good and scientific men outside of the medical fold, and prevented others becoming real scientists and useful co-workers? Are we going to repeat the same blunder, and create new schools; for instance an Opotheapeutic one? If this is not our aim, whence the eagerness to bait a good man, a real scientist?

It is our claim that we do not care what therapeutic school any physician professes, as long as he demonstrates to our board of examiners that he had the proper learning, and therefore the necessary knowledge to know what he is talking about.

There certainly could be no objection if a real scientist came to us and demonstrated or tried to prove how a stone in the kidney or bladder could be melted by prayer. Surely he would have to offer good proofs, or take the consequences.



A lofty "we don't want to have anything to do with the fellow" does not prove that he is wrong, it may just prove that we know nothing about his subject.

Kindly excuse an old physician when he dares to warn the leading members of his beloved profession not to be intolerant and thus not to expose themselves to the reproach that they are talking through their illustrious hats.

Faithfully yours,

VICTOR G. VECKI, M. D.

#### A CONSTRUCTIVE SUGGESTION.

San Francisco, November 3, 1920.

To the Editor: With the defeat of the "Chiropractic amendment" will the existing or the to be created "therapeutic" cults discontinue their obnoxious being? Will the drugless healers, the chiropractic practitioners, the spinal adjusters, etc., etc., cease to exploit a harmless and ill-informed public? I doubt it very much.

They will continue to flourish and to procreate until the public becomes enlightened that the healing powers claimed by them through elaborate advertisements is nothing original or peculiar, but is part of the regular medical man's routine treatment; that these manipulative procedures are being taught to our students in the medical colleges and being applied whenever indicated, and not at random.

To discontinue the parasitic existence of these therapeutic cults two ways are open to the medical profession (to enlighten the public is not alone our task):

1. Our medical colleges should incorporate in their curriculae physiotherapy, with its various branches.

The consequence of this would be that medical men will be able to apply these valuable remedies on their patients or they will direct them to colleagues who have devoted their lives to the study and the practice of physiotherapy. It will abolish the prejudice against physiotherapy and will stimulate research along those lines.

2. The medical profession should aim to legalize the physical modalities: electricity, light, heat, X-rays, exercises, massage, etc., etc., as it has legalized the use of drugs and the scalpel.

This will give the profession the controlling power over the various existing therapeutic cults, and will prohibit their abusive practice as it has prohibited the existence of the "clap doctors."

May I suggest to you a discussion of these important questions in your Journal, so that the profession be prepared to pass a resolution concerning them at the next State Medical meeting.

Thanking you for your kind attention, I am pleased to remain,

Faithfully yours,

DR. A. GOTTLIEB.

#### METHODISTS FOR VIVISECTION.

To the Editor: I am enclosing herewith a copy of a resolution passed at the recent session of the California Conference of the Methodist Episcopal Church, held in Oakland. It will go far, I believe, to show that at heart the Church is sound in its bearing toward scientific medicine and that the chiropractic propaganda alleged to have been issued from the Book Concern Building cannot represent the mind of the Church in general, but is of local and limited origin, and from the stigma of which the Church could clear itself. Very truly yours,

R. T. STRATTON.

The following resolution was adopted by the California Annual Conference of the Methodist Episcopal Church at its late session in Oakland:

"The practice of medicine is not an exact science, and from the nature of the case cannot be. Yet the progress made in this profession is among the most wonderful in the achievements of mankind. In the relief brought to human suffering and the practical

mastership of the great scourges of age-long diseases the medical profession has won for itself the high appreciation of man. The knowledge and practice by which they have so signally succeeded have come to them in a considerable degree by vivisection, a practice that produces some pain, but by which man is relieved from many-fold degrees of suffering. By their investigations and earnest service they will doubtless make greater advancement in that knowledge which will bless the world. We wish to record here our high appreciation of their services and to declare our purpose to take a reasonable interest in their work and the protection of their privileges."

#### A DISCRIMINATING FRIEND.

State Health Laboratory, South Dakota,  
University of South Dakota.

Vermillion, November 10, 1920.

To the Editor: I am very sorry to state that my copy of the California State Journal of Medicine for the month of October has never arrived. I wish to request that you mail me another copy in order that I may keep my files unbroken. I consider that the California State Journal of Medicine is the best of the State journals to which I have access. To the high quality of its scientific papers there is added the personal enjoyment of keeping in touch with old friends, whose activities are reported from time to time in the County Society section.

Thanking you for this favor, and with best wishes for the success of the Journal, I am

Sincerely yours,

JAMES R. SCOTT,  
Assistant Director.

### State Society

#### PROGRAM NOTICE

FIFTIETH ANNUAL SESSION MEDICAL  
SOCIETY, STATE OF CALIFORNIA  
CORONADO, MAY 11, 12, 13, 1921

#### NOTICE TO APPLICANTS FOR PLACE ON PROGRAM

Time Limit, December 31, 1920

Authors who plan to present papers at the coming meeting should bear in mind that last year papers on timely subjects and of more than excellent merit had to be refused because they had not been presented before the time limit expired.

A limit was placed on programs for past sessions because of the great number of papers presented to the Program Committee each year, many more applications being received than the time allotted would permit.

All applications are to be sent to the State Secretary's office with the following data:

1. Author's name and address.
2. Complete title of paper.
3. Abstract covering all the essential points to be discussed.
4. Information as to what materials will be required for presentation of paper.

#### RULES GOVERNING READING OF PAPERS AND DISCUSSIONS AT STATE SOCIETY MEETING

The following rules have been adopted by the Committee on Scientific Program:

##### Rules for Authors

1. Time allotted for each paper is fifteen minutes. The only exception to this rule will be the latitude allowed visitors from other States who come as guests of the Society.

2. No motion from the floor to extend the time of the author will be considered by the chairman of any section.

3. Each author will be allowed five minutes for closing the discussion of his paper.

4. Each author must prepare an extra copy of his paper and present the same to the officer presiding over his section before he will be eligible to read his paper.

5. Absolutely no paper may be "read by title." By consulting the program, which will appear in the Journal in due time, as well as the special program issued at the State meeting, each author can learn definitely when his paper is due to be read.

6. Failure on the part of an author to appear and read his paper automatically precludes the acceptance of future papers by such author for a period of two years.

#### Rules for Those Taking Part in Discussions

1. Openers are limited to five minutes.
2. Subsequent speakers are limited to three minutes.
3. The privilege of a second three minutes will not be granted to any one.

At the one hundredth and nineteenth meeting of the Council the functions of the Program Committee and the officers of the various sections of the program were defined as follows:

1. The section officers will have charge of assembling the program for their respective sections.

2. The Program Committee will be responsible for the assembling of the program for the general session.

In addition, as heretofore, the Program Committee will vise and finally arrange the entire program in conjunction with the officers of the various sections of the program.

3. All applications for places on the program should be forwarded to the State office for proper distribution to the various section chairmen and secretaries.

\* It will be noted that a new section (a General Section) has been created by the Council. This section will be a meeting where topics of interest to the profession at large can be discussed. This part of the program will be held at a time when the various sections are not convened, so that every one may be given an opportunity to be present. There will be two sessions, and they will be held on the first day of the meeting. The morning session will commence at 9 o'clock and continue at 11:30 o'clock, when the President's address, which has always been a part of the Tuesday morning's program, will be given. Everything else heretofore appearing on the program of the first morning will be dispensed with.

The second session will be held in the afternoon from 2 to 5 o'clock.

#### PROGRAM COMMITTEE AND SECTION OFFICERS FOR THE NEXT STATE MEETING

##### Eye, Ear, Nose and Throat Section

Frank E. Detling, L. A. Investment Bldg., Los Angeles, Chairman; Harvard McNaught, Butler Building, San Francisco, Secretary.

##### \* General Section.

##### G. U. Section

Geo. G. Reinle, 1322 Broadway, Oakland, Chairman; Geo. W. Hartman, 999 Sutter Street, San Francisco, Secretary.

##### Gynecology and Obstetrics Section

Frederic M. Loomis, 350 29th Street, Oakland, Chairman; Thomas F. Wier, 415 Elm Street, San Diego, Secretary.

##### Industrial Medicine

Chas. A. Dukes, Central Bank Bldg., Oakland, Chairman; John L. Pomeroy, County Court House, Los Angeles, Secretary.

##### Medical Section

Samuel H. Hurwitz, 516 Sutter Street, San Francisco, Chairman; Rowland S. Cummings, Merchants' Nat. Bank Bldg., Los Angeles, Secretary.

#### Neurological Section

Chas. L. Allen, 800 L. A. Investment Bldg., Los Angeles, Chairman; Richard W. Harvey, 135 Stockton Street, San Francisco, Secretary.

#### Surgical Section

William A. Clark, Oakland Bank of Savings, Oakland, Chairman; Clarence G. Toland, Baker-Detwiler Bldg., Los Angeles, Secretary.

#### The Committee on Scientific Program and Work for 1920 Is as Follows:

Walter V. Brem, Brockman Bldg., Los Angeles, 1921; Lemuel P. Adams, Fed. Realty Bldg., Oakland, 1922; Francis M. Pottenger, Pottenger Sanitarium, Monrovia, 1923; Fred F. Gundrum, Capitol Building, Sacramento, 1924; Saxton Pope (as Secretary of the Society), Chairman.

## County Societies

### CONTRA COSTA COUNTY

The regular monthly meeting of the Society was held October 27, 1920, at the Hotel Crockett, President G. M. O'Malley presiding. The minutes of the previous meeting were read and approved.

Mr. Warren McBryde, representing the California & Hawaiian Sugar Company, extended a cordial welcome to the Society.

Dr. O'Malley stated that he had purposely delayed appointing the committee to act on the County Hospital question till after election. Opening this subject precipitated another discussion by various members.

Dr. U. S. Abbott rendered a report on the work done by the doctors in this county in distributing campaign literature and congratulated them on the response which they made.

By a vote of the society Dr. J. T. Breneman of El Cerrito was unanimously elected to membership.

The subject of the annual banquet was proposed and it was decided by vote to hold this event Saturday evening, November 20, at the Hotel Oakland.

A demonstration of the Lungmotor was made by a representative of the manufacturers.

The first paper of the evening was read by Dr. H. G. MacLean of Oakland, on Visceroptosis, and with the illustrations including detailed treatment proved exceedingly interesting. P. L. Ansell of Oakland followed with a paper on the same subject but viewed in the light of the roentgenologist. He showed on the screen several X-ray pictures illustrating different types and degrees of this condition.

The meeting adjourned to the dining room where a very appetizing luncheon had been prepared at Mr. McBryde's direction.

### FRESNO COUNTY

The Fresno County Medical Society held its regular monthly meeting in The University Club rooms.

Dr. J. H. Pettis was unable to be present on account of illness and Dr. Guy Manson, the first vice-president, presided.

The regular business of the Society was dispensed with on account of the length of the program.

Dr. Geo. H. Aiken, City Health Officer, reported the rather extensive distribution of diphtheria in the city and asked that all the medical men would co-operate in reporting cases so that they could be placed under quarantine and prevent the possible spread of this condition.



Dr. Harry E. Alderson of Stanford University Medical School presented a paper on "Diseases of emanations from radium."

Dr. Alderson presented some of the problems that are met by the general practitioner in the treatment of common skin diseases and gave many helpful suggestions as well as tried therapy. The treatment of skin lesions by radium was not gone into by Dr. Alderson.

Dr. Geo. H. Sciaroni followed the paper of the evening by a scientific discussion of the physics of radium and the treatment of disease by means of emanations from Radium.

Dr. Pruett of Stanford University Medical School gave a number of case reports on the treatment of poison oak with the injection of graduated doses of the alcoholic extract of *rhus toxicodendrol*. The treatment has been very hopeful as to the immediate condition but as to the immunity conferred this has not been worked out.

Dr. Manson expressed the sentiment of the Society when he thanked Drs. Alderson and Pruett for their exceptionally fine papers.

### LOS ANGELES COUNTY

The regular meeting of the Los Angeles County Medical Association took place October 7, 1920, 8 p. m., at the Auditorium of the Normal Hill Center. It was an open meeting for the families and friends of the members and those of the Retail Druggist Association and the Los Angeles County Dental Association.

A regular meeting was held Oct. 21, to which each member's family and friends were invited. Dr. Wm. Duffield, chairman, introduced Mr. Chester Rowell who spoke on the four anti-health measures. Dr. Duffield then stated that the allied professions have been generous in their support and that the bar association was represented by Major Frank P. Doherty, Esq., who was introduced.

Dr. Harvey W. Wiley, health and food editor of Good Housekeeping magazine, was greeted by vigorous applause.

Dr. Wiley concluded by saying: "I am a preacher in my way, not like the preacher you hear Sundays at church who is doing his best to get you into heaven; I am trying to keep you—out. Vote against these amendments and save your State from disgrace."

Dr. Duffield announced that the new tuberculosis hospital would be opened within a week.

Dr. Duffield moved a vote of thanks for Dr. Wiley and Mr. Rowell, which was carried unanimously.

### Arden Picnic

On Saturday, October 24th, many members, their families and friends drove to the beautiful Arden Dairy Farm near El Monte. The milking of several hundred cows demonstrated the preliminary cleaning, consisting of washing and scrubbing each cow and the skill of cleanly milkers at work. The filling of milk bottles, capping and sealing them with wires is done automatically by machinery. Sterilization of the milk, tuberculin tested cows are some of many other features that show the modern methods.

Messrs. Kenfield and Carter, the owners and managers of this fine institution, furnished artistically cased lunches with the famous certified milk and ice cream.

Finally the hosts and guests gathered around the speakers, who in earnest appeal eloquently spoke of the ways and means to conserve public health at the coming election.

### Specialists for Prevention

Father William E. Corr of the Bureau of Catholic Charities, presided over a meeting October 20th, where a staff of specialists was chosen: Drs.

Chas. C. Browning, C. Benson Wood, A. E. Galant, William Rinch, Walter Holleran, M. Pontius, H. Mitchell, Julia Metcalf, Frank Bishop and Marcia Patrick. This staff will have charge of the medical supervisory work at the Mother Cabrini Preventorium at Burbank.

### Hospital for Soldiers' Home

Architect W. A. O. Munsell prepared plans for two new hospital buildings to be built by the Government at Sawtelle. They will consist of two stories with basement on areas of fifty-four feet wide by 364 feet long, and containing eight wards for 216 beds. Reinforced concrete structural frames, stucco exterior finish and clay tile roofs will be used. Nurses' quarters will also be provided.

### Outfall Sewer

W. T. Knowlton, engineer of sewers in the city engineering department, states that the expense of constructing a screening plant and outfall pier is included in the general plan for a bond issue of \$12,200,000.

The residents of Hermosa Beach, Manhattan Beach, and Redondo Beach complained against the discharge of sewage from the outfall sewer of the City of Los Angeles. This complaint will be eliminated with the sewer screen system. Los Angeles, being a seaboard city, can discharge its sewage into the ocean at Hyperion after it has received the treatment proposed, which will be less costly than that of interior cities.

### Garbage Disposal

City Engineer John A. Griffin forwarded to the City Council data on method and cost of garbage collection of 41 of the largest cities of the United States. Of thirty-two cities collecting garbage separately from other wastes, thirteen dispose of garbage by reduction, twelve by hog feeding, three by incineration, two by dumping, while two did not give the method. It was found that of the thirteen cities which employ the reduction method, Los Angeles has the lowest net cost per ton.

### Personals

Dr. Edward D. Jones, physician-explorer, field curator of the Southwest Museum, returned to Los Angeles, October 21, from Alaska, bringing back mountain sheep, moose, caribou and other animals indigenous of the north for the Southwest Museum. A separate large building will be constructed to receive these specimens from the Yukon.

Dr. W. E. Carter, formerly of Los Angeles, has become a member of the San Francisco Pediatric Group, with practice limited to diseases of infants and children. This group consists of Drs. William Palmer Lucas, E. C. Fleischner, and Langley Porter, besides Dr. W. E. Carter. The offices of this group are in the University of California Hospital, San Francisco.

### SACRAMENTO COUNTY

#### Notes Sacramento Society for Medical Improvement.

Regular monthly meeting held at the Hotel Sacramento, Tuesday evening, October 19.

Forty members present; guest of the evening, Dr. Charles L. Tranter of San Francisco, who delivered an address on the subject "Indications for operation in Fracture of the Skull, and Treatment of Peripheral Nerve Lesions"; a most interesting and scientific talk on the latest treatment of these lesions as practised by U. S. Army methods, particularly at the Government's Staten Island Hospital, where over 600 cases had come under the Doctor's direct observation or treatment.

Dr. Reardon reported a case of Type I Pneumonia, to whom an intravenous injection of serum was given (100 cc.) with a crisis in 24 hours and prompt abatement of symptoms.

Dr. Gundrum reported a case of possible "Encephalitis Lethargica."

Dr. Yates had a case with enormous edema of the penis and scrotum, extending to the pubes and groin, the result of an insect bite while on the toilet, with death resulting in five days, during the first three of which the case had no increase of temperature or pulse rate.

Dr. Hanna, Health Officer, cautioned the members of the Society to be on their guard, as two verified cases of rabies had been reported in dogs hereabouts, within a week.

Drs. Thomas and Pope were elected to membership in the Society; a preliminary draft of a new constitution for the Society was presented by Dr. J. Parkinson and discussed by Dr. James.

A vote was taken endorsing the institution of a Central Physicians' Telephone Exchange.

Adjournment at 12 o'clock.

### SAN DIEGO COUNTY

The annual election of the Society takes place on Tuesday, December 14, the polls being open all day in the Medical Library.

San Diego County voters repudiated at the polls November 2 three of the four quack quartette measures. Why not the fourth?

About a dozen of our members attended the sessions of the Southern California Medical Association at Los Angeles, November 6 and 7, and were rewarded with an excellent program.

Contracts have recently been let by the Government for the construction of the first group of buildings in a new naval hospital at San Diego. These buildings all call for concrete walls with colored tile roof. Occupying a prominent position within the border of Balboa Park, this group will present an attractive and commanding appearance. With a community hospital, owned by and operated for all the people, placed in close proximity to the naval hospital, San Diego will have laid a foundation for an enduring Health Center.

The Society motored to El Centro November 13 to hold its regular meeting in conjunction with the Imperial County Society.

Dr. Nelson W. Janney, director of the Memorial Laboratory at Santa Barbara, addressed the County Society in its rooms on Tuesday, October 26. His subject was "The Meaning of Basal Metabolism Determinations to the Clinician," and it was presented in his usual masterly manner.

### SAN FRANCISCO COUNTY

#### Proceedings of the San Francisco County Medical Society.

During the month of October, 1920, the following meetings were held:

##### Tuesday, October 12—General Meeting.

1. Pathology of arthritis. I. W. Ely.
2. Roentgen ray in diagnosis of arthritis. H. E. Ruggles.
3. Arthritis of the spine. G. J. McChesney.
4. Physical therapeutics in arthritis. H. H. Markel.
5. Medical aspects of arthritis. P. K. Brown.

##### Tuesday, October 19—Section on Surgery.

1. Surgery of the abdominal wall. M. S. Woolf.
2. Border breast tumors—diagnosis and treatment. E. I. Bartlett.
3. Report of unusual surgical cases from San Francisco Emergency Service. Edmund Butler.

##### Tuesday, October 26—Section on Eye, Ear, Nose and Throat.

1. Demonstration of cases.
2. Radical mastoid operation under local anesthesia. H. B. Graham.
3. Sepsis in childhood emanating from the throat. E. C. Fleischner.
4. Subnormal accommodation, the result of focal infection. Percy Sumner.

### SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held Friday evening, October 8, at the Chamber of Commerce quarters. Dr. C. R. Harry presiding in the absence of the president. Those present were Drs. R. T. McGurk, S. F. Priestly, J. V. Craviotto, J. T. Davison, J. P. Martin, F. S. Marnell, L. Haight, F. J. Conzelman, Grace McCoskey, A. H. McLeish, C. R. Harry, N. E. Williamson, D. F. Ray, L. Dozier, J. P. Hull, D. R. Powell, Dr. Bucher of the Travelers' Tuberculosis Clinic, Dr. Chapman of Stockton and Dr. Hans Lissner of San Francisco as guests.

The minutes of the previous meeting were read and approved. The Committee on Admissions reported favorably upon the name of Dr. H. E. Price and upon motion duly made and seconded the report of the committee was unanimously accepted and Dr. Price was declared a duly elected member of the Society. Dr. McGurk reported on behalf of the committee appointed at the previous meeting to arrange for suitable placards, calling the attention of the voters to the necessity of voting against the anti-public health measures and in favor of the poison law. These placards had been placed in the Red Cross booth at the County Fair grounds, had been distributed to the physicians' offices, drug stores and other places where they would attract the eye of the voter.

The secretary announced officially, with profound regret, the passing of the dean of the medical profession, Dr. W. E. Gibbons. The committee had previously waited upon the surviving relatives, to express on behalf of the Society, their feeling of deep respect and the high esteem in which Dr. Gibbons had been held by his fellow practitioners. His life had been a splendid example of sincere endeavor to relieve pain and suffering and his work will long be a splendid example and inspiration for the younger men in the medical profession.

Dr. Williamson of the State Hospital presented his Spinal Puncture Chair which he had devised for ease and safety, restraining the patient when taking a spinal puncture.

Dr. Hans Lissner of the University of California spoke upon the ductless glands omitting the thyroid which had been the theme of a recent meeting of the Society. His address was most interesting and thoroughly appreciated by the members present.

### Clinical Department

#### CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS.

Case No. 12. September 16, 1920. Male, American. Age, 22 months. No. 29867. B. P.

**Complaint:** Eczema and asthma.

**Family History:** Father and mother living and well. No other children. One miscarriage at two months. Paternal uncle had asthma and died at the age of 16 years. Mother subject to attacks of asthma. No history of eczema or urticaria. No other family diseases.

**Past History:** Full term, normal birth. Breast fed for nine months. Developed normally. Walked at 14 months. No infectious diseases. Tonsillectomy and adenoidectomy at 16 months.

**Present Illness:** Eczema began at six months on breast feeding and orange juice. It appeared first on abdomen and thighs, later spread to over entire body. Severity has varied, but some lesions have always been present. Asthma began at 14 months and first attack lasted three days with history of dyspnoea, wheezing and cough. Further attacks occurred every month or two until lately



they have come every week or two and have lasted two or three days. The child has been treated for these symptoms by various modifications of fat free, sugar free and protein free diet without marked relief. Mother has noted that child is very sensitive to eggs, digestion of which causes nausea and vomiting. She further states that some egg rubbed on child's face caused so much swelling that the eyes were closed.

**Physical Examination:** A well-developed and nourished child of about 2 years, with well-formed head, body and extremities. The skin is dry and rough, with patches of chronic inflammation over face, back, arms and hands. Adenopathy is not present, although cervical glands are slightly palpable. Eyes, ears, nose and throat are practically negative. Tonsils removed. Chest is well developed, the lungs are resonant, but numerous sibilant and sonorous rales are heard throughout both lungs. The heart is normal size and sounds regular and clear. Abdomen is entirely negative as well as genitalia. Normal reflexes are present.

**Laboratory Findings:** Blood at entrance showed 80 per cent. hemoglobin, red blood cells 5,056,000, white blood cells 10,800, polys. 50 per cent., small monos. 25 per cent., eosin. 20 per cent., large monos. 5 per cent.

Urine, negative.

Throat culture, staphylococcus, *p. aureus*.

Von Pirquet, negative.

Wassermann, negative.

X-ray—Chest, negative. Skull and long bones, negative.

Skin tests—Markedly positive in following order to egg white, wheat, barley, oats, beans, potatoes, tomatoes and grape fruit as indicated by wheals 2.5 cm. to 1.5 cm., surrounded by red areola control .5 cm. Negative to milk, lamb, beef, pork, veal, squash, corn, sweet potatoes, fig, plum, cauliflower, carrots, pear, peach, lima bean, cocoa, orange, strawberry, blackberry and raspberry, Staphyloc. *P. A.*, red top pollen, horse serum.

**Course in Hospital:** At entrance child showed an extensive chronic eczema and acute asthma and was kept in bed on a whole milk diet with 60 grams of cereal and a slice of toast. The asthma disappeared entirely in three days. After skin tests were done the diet was changed to a special one, including whole milk (boiled), corn bread and butter, baked sweet potatoes, chop, scraped beef, squash and berries, giving about 1000 calories. Under this plan of diet there was no asthma and the eczema cleared up steadily, local treatment consisting of Ung. cerussae and Lassars paste. Splints were tied to the child's arms and secured in a manner to prevent scratching and yet allowing him freedom to sit up and play.

To test child's sensitiveness to egg, an egg white was given at 5:30 P. M. on October 7th, the patient vomited at 6 P. M., and at 7:30 vomited again and urticaria appeared on the face and body, with itching; at the same time the child began to have asthma, with considerable dyspnoea and sibilant rales in the chest. The blood pressure was found to be 158, pulse rate 160 and temperature 37.2 degrees. He was given  $\frac{1}{4}$  cc. adrenalin chloride subcutaneously at 9 P. M. with immediate relief, falling asleep in 5 minutes. The following morning there were no signs of asthma and only a slight aggravation of the eczema.

Raw egg albumen applied to the skin scratch caused a wheal 5x4 cm.

Diluted 1-10	"	"	"	2 $\frac{1}{2}$ x1 $\frac{1}{2}$	"
Diluted 1-100	"	"	"	1 $\frac{1}{2}$ x1 $\frac{1}{2}$	"
Diluted 1-500	"	"	"	1	"
Diluted 1-1000	"	"	"	$\frac{3}{4}$	"
Control	"	"	"	$\frac{3}{4}$	"
Wheat—Protein undiluted, wheal	1 $\frac{1}{2}$ cm.				
Wheat—Protein diluted 1 to 10, wheal	1 cm.				

Wheat—Protein diluted 1 to 100, wheal negative.

These tests were repeated at different times and were always practically the same.

Desensitization was begun with egg albumin diluted 1-1000 (as child was positive 1-500), 1 drop t. i. d. and increased rapidly, after first week child was receiving 10 drops t. i. d.

In case of wheat sensitization, the child reacted 1-10, but was negative 1-100, and as cooked farina or Cream of Wheat contain 1 $\frac{1}{2}$  per cent. protein, small doses of these cereals were used, beginning with 1 cm. t. i. d., and after first week  $\frac{1}{2}$  teaspoon t. i. d.

The child was allowed to go home one month after entrance and one week after desensitizing treatment was started. The child's diet was restricted to that while in Hospital with a caloric value of about 1000. Weight at entrance 10.4 kilograms; on discharge 11.9 kilograms. No asthma present and eczema much improved.

**Discussion:** A few interesting points in protein sensitization were brought out in the study of this case. It was quite obvious from the history of the complaint, Eczema and Asthma in so young a child that some protein was the cause, and the mother's observation in regard to egg causing gastric disturbance and urticaria was pathognomonic.

History of eczema at 6 months on breast milk only with orange juice cannot be demonstrated as protein sensitization, as no tests were made at that time, but in the light of present study of the case, showing a child unusually sensitive to a variety of proteins, it is reasonable to suppose that some protein was at fault, even though the child is not sensitive to cow's milk and orange juice at the present time. The asthma began at 14 months, an age when the child was on a varied diet containing cereals and occasionally egg. The history does not associate the asthma with ingestion of egg, because the mother's memory was at fault in regard to the diet at those particular times. To clear up this point one egg white was given the child in the Hospital and immediately signs of egg sensitization appeared in an urticarial rash and typical bronchial asthma. It was interesting to note the rise of blood pressure to 158 and the immediate relief when adrenalin chloride was administered.

No further proof of egg sensitization was necessary in the case, but it was thought best to try to prove the same by animal experimentation according to methods of Schloss. Four cc. of citrated blood from the child was introduced intraperitoneally into each of two guinea pigs, and in the following 24 and 48 hours 3 cc. of egg albumin (diluted with N. S.) was injected intraperitoneally. The first guinea pig lived, the second one was found dead after 5 or 6 hours with negative P. M. findings. Repeating this experiment, failed; again, after the induction of asthma by egg albumin, the experiment failed.

We are led to believe from the failure of these animal tests that, first, passive anaphylaxis is very difficult to produce (Schloss was only successful in about 18 per cent. of his cases), and, second, that there are very few antibodies in the blood of children sensitive to egg (Walker's conclusion following complement fixation and precipitin tests).

The point of most practical interest in this case lies in the skin tests themselves, which, after all, (according to Walker and others), are the most reliable guides we have in studying these cases.

It was very positively demonstrated repeatedly that raw egg applied to a small skin scarification caused a large urticarial wheal, varying in size from 3 to 5 cm. in diameter, further a dilution 1-10 caused a smaller wheal 2 to 3 cm.; a dilution 1-100 a wheal 1 to 2 cm.; a dilution 1-500 a wheal slightly larger than control, which varied from

$\frac{1}{2}$  to  $\frac{1}{4}$  cm.; while 1-1000 dilution was negative. Wheat protein tested in the same way showed a positive wheal  $1\frac{1}{2}$  cm.; dilution 1-10, 1 cm.; dilution 1-100, negative.

Tests were made with a von Pirquet scarifier producing a small, round lesion of skin pink in color about 2 mg. in diameter. The raw white of egg was used and when diluted the N. S. was added. For the dried protein of wheat the ordinary flat wooden toothpick was used to apply a small amount to the scarification, after which one drop of n/10 Sod. hydrate was added to dissolve the protein. Readings were made in 20 to 30 minutes.

It was found that the child reacted to the raw egg and raw wheat cereals (farina) as readily as to the stock proteins, and shows the practicability of these tests at the bedside with the ordinary available house foods.

In regard to treating these cases, the easiest method is obviously to omit the offending articles of food from the diet. This was done in regard to beans, oats, barley, potatoes and tomatoes. As regards so vital a food as egg or cereal, it is necessary to desensitize the child, using a solution of these proteins ten times weaker than the weakest solution giving a positive skin reaction. The method used is to start with a very small dose of this solution of protein and increase more or less rapidly according to circumstances, doubling the dose every week or two and checking with skin tests if possible. Where this method cannot be carried out strictly, the symptoms of eczema or asthma will prove that food is being pushed too rapidly. The usual time of treatment extends over a period of three to six months and is curative.

It is well to remember that these foods should be continued after this period, quite regularly, for too long an interval between administration of offending foods may bring back the sensitization.

## Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Although progress has been made in the matter of anti-venom serum, there is no anti-venom serum on the market today which can be considered a specific in snake bite or even usable in all snake bites, as careful experiments seem to show that anti-serum for one species is useless against others.

The Council of Pharmacy and Chemistry advises physicians to use sodium salts, as far as possible, instead of potassium salts. Potassium salts seem to have no advantage over sodium salts, as the medicinal effect is usually due to the negative radical and potassium salts should be conserved for other industries where potassium salts are needed. Potassium salts probably came into general medical use in preference to sodium salts because they are, as a rule, more easily crystallized and more easily obtained pure. However, with modern technique, there is no difficulty in obtaining pure sodium salts, and they are, as a rule, more soluble than the corresponding potassium salts and contain a somewhat larger proportion of the medicinal ingredient.

Salts of Cerium and related elements have recently been recommended for tuberculosis, the claim being made that they kill the tubercle bacilli. So far test tube experiments have failed to show definitely that any of the substances, such as

Gold Salts, Guaiacol, Creosote, etc., recommended for this purpose, have any decided effect upon the tubercle bacilli even in dilutions such as would exist in the body, and it is more doubtful if Cerium salts are any more efficacious. However, we live in hopes.

Benzyl Benzoate has been known to chemists for many years, and has even been an article of commerce. It is used extensively by perfumers as a solvent for musk. However, it has more recently been introduced into medicine, but there are no efficient tests as to its purity. Under these circumstances the Council of the A. M. A. has considered it advisable to fix a standard, especially in view of the fact that so many pharmaceutical houses are tempting the physician with elixirs, emulsions, solutions, capsules, etc., etc. As a matter of fact, it has been found that benzyl benzoate, sold as such by the manufacturers of pharmaceutical chemicals, answers in most cases the requirements of the Council and is certainly as pure as that used in most of the proprietary preparations.

It seems a pity that benzyl benzoate should have been sprung on the medical profession without sufficient careful clinical experiments. It has been recommended for use for so many different things and has been found wanting in so many cases that physicians are a little chary about using it, although it may eventually be found a valuable addition to the *Materia Medica*.

The work of the Council on antiseptic soaps seems to indicate that these are not at all antiseptic in the true sense of the word, but that they are aseptic, like any other soap, owing to their cleansing properties and in fact it is not unlikely that the antiseptic makes the soap less efficacious by interfering with its lathering qualities.

The Schick test for diphtheria seems to offer means whereby the physician can easily determine those who are liable to take the disease and give them prophylactic doses of antitoxin when they are exposed. It seems strange that this test has been so little used in this country.

SUKRO-SERUM and APHLEGMATOL have been examined by the Council and found to be merely solutions of sugar or sugars. The injection of sugar in the treatment of tuberculosis is of extremely doubtful benefit.

SILVER SALVARSAN has been pretty thoroughly tested abroad and it is questionable whether it has any advantage over Salvarsan or Neosalvarsan. Apparently no license for its manufacture in this country has yet been issued and it is therefore not on the market. It seems probable, however, that it will be on the American market before long unless experiments should show decisively that it has no advantages as a substitute for Salvarsan.

IODEX.—The Council has again examined Iodex and finds that it has not apparently changed. Neither the Iodex nor the liquid Iodex contains any appreciable quantity of free iodine and the total iodides is only  $\frac{3}{5}$  of that claimed. Notwithstanding this, Iodex is still extensively prescribed and extensively used by the laity.

CALCIDIN is said to be iodine in combination with lime and starch. When taken into the stomach free iodine is liberated and absorbed as free iodine. Free iodine taken internally has no advantage over the iodides and it is difficult to see why Calcidin should be preferred to the iodides.

I. G. O.—According to Dr. H. S. Lambdin, Peru, Kansas, I. G. O. is: saturated solution of iodine gas in petrolatum at 130 degrees with oil of eucalyptus. The heat of the body liberates the iodine and it is absorbed as free iodine. The A. M. A. Chemical Laboratory reports that the samples of I. G. O. show a black ointment, green in thin layers, with a slight odor like crude petroleum, containing but 0.59 per cent. of free iodine. (Reports of the A. M. A. Chem. Lab. 1919, p. 106.)



## Collected Clippings on Medical Law Enforcement

### Colusa's Daniel

There's a judge up in Colusa, the Hon. Ernst Weyland, who apparently believes that his judgments extend far beyond the rice fields and the limits of the law. On October 10, 1920, with an innocence of California statutes that is simply bucolic, the learned Judge issued a permanent injunction purporting to restrain the State Board of Medical Examiners from revoking the license of W. F. Harlan, an osteopath of Arbuckle.

Legal action against the Board can only be brought in the cities of Sacramento, San Francisco and Los Angeles.

On the occasion when the Judge rendered his anomalous decision, a Boston lady leaving the courtroom was overheard saying: "Of all the causes which conspire to blind man's erring judgment and misguide the mind—permanent injunctions issued by temporary people are perpetually phenomenal."

### Miracle Man Reaches Goal

Armando Dominguez, "the Miracle Man," three times charged with violating the laws of California governing the treatment of the sick, and three times acquitted by a jury of his peers, was declared insane October 6th and committed to Patton State Hospital.

### Dominguez Pleads Guilty

Apolmar Dominguez of Santa Ana, no relation to "the Miracle Man," but also a law violator, pleaded guilty and paid a fine of \$100.00.

### Open Season For Herbalists

B. Y. Gwan, Chinese herbalist of Marysville, Lan Sun, Chinese herbalist of San Francisco, Shun Chew or Ah Ping, Chinese herbalist of Santa Rosa,

Wah Lee, Chinese herbalist of Watsonville,

Go Gew, Chinese herbalist of Oakland,

C. T. Chu or S. E. Gee, Chinese herbalist of San Francisco,

Quong Kee, Chinese herbalist of Chico, have all been arrested recently and are awaiting trial.

Chew Shun, Chinese herbalist of Stockton, was fined \$200.00 on November 6th, and M. T. Mar On Woo and See Tai Bong of the same place paid similar penalties for violating the medical practice act. Chew Yuen of Red Bluff paid a fine of \$350.00 following his conviction on a charge of violating the Harrison Narcotic Act. His appeal was denied and his bondsman ordered into court to tell what they know regarding his whereabouts. Chung was sentenced to five years and a fine of \$5100.00.

## New Members

Davis, Harry W., San Francisco; Benner, E. Alan, San Mateo; Mogan, Richard F., San Francisco; Howell, Edgar H., San Francisco; Jewett, Russell A., San Francisco; Cary, N. Austin, Oakland; Martin, Ann, Berkeley; Sandow, B. F., Fort Scott; Spalding, J. B., Richmond; Spalding, C. H., Richmond; Arnold, D. E., Fresno; Wells, C. E., Fresno; Finney, Clara E., Modesto; Austin, Florence O., San Diego; Miller, Thatcher, San Diego; Price, H. E., Stockton; Fish, Ezra S., Los Angeles; Schiffbauer, H. E., Los Angeles; Sutherland, P. R., Los Angeles; Guy, Walter P., Los Angeles; McNally, Frances E., Los Angeles; Jones, W. H., Long Beach; Jones, W. Harriman, Long Beach; Ware, E. Richmond, Los Angeles; Yager, W. L., Los Angeles; West, Howard F., Los Angeles; Rochester, A. S., Los Angeles; Miller, Samuel J.,

Long Beach; Stigall, C. G., Los Angeles; Vruwink, John, Los Angeles; Osburn, J. N., Los Angeles; MacFarlane, N., Los Angeles; Nelson, Clarence E., Los Angeles; Butka, Lawrence J., San Gabriel; Skeel, Roland E., Los Angeles; Leviton, Henry I., Los Angeles; Williams, Robert T., Los Angeles; Moffit, Edwin J., Los Angeles; Stolz, Charles E., Los Angeles; Goffin, L. C., Davis; Bower, Albert G., Hanford; Grant, W. L., Los Angeles; Carey, T. Sheridan, Los Angeles; Weaver, Chalmer H., Los Angeles; Coodley, Oscar, Los Angeles; Kvello, Olaf A., Los Angeles; Hodgdon, Frank W., Pasadena; Jones, Isaac H., Los Angeles; Spencer, Reuel M., Los Angeles; Seals, Percy W., Los Angeles; Lewis, Eugene R., Los Angeles; Duncan, W. C., Los Angeles; Keller, Webster F., Sawtelle; Guilfoil, James A., San Francisco; Hotchkiss, L. W., Santa Barbara; Binkley, R. W., Fresno; Shepard, John H., San Jose; Burchfield, C. M., San Jose; Weiss, Julius, San Francisco; Doyle, Helen McKnight, San Francisco; Roncovieri, Alfred, San Francisco; Kracaw, F. C., San Leandro; Rea, Thomas, Oakland; Greig, Thomas, Berkeley; Palamountain, W. B., Oakland; Richardson, Waldo, San Francisco; Fancher, Chas. R., Modesto.

## Transferred

Lamotte, L. J., from San Bernardino Co. to Los Angeles Co.; Hutchinson, C. W., from Fresno Co. to Los Angeles Co.; Jones, O. C., from Los Angeles Co. to Santa Barbara Co.; Owen, H. O., from Kern Co. to Imperial Co.; Mordorff, Charles E., from Los Angeles Co. to Fresno Co.; Sewall, Ralph J., from San Francisco Co. to Los Angeles Co.

## Obituary

### ALONZO S. LARKEY, Oakland

Whereas, Death has claimed another member of the Alameda County Medical Association in the sudden passing of Dr. Alonzo S. Larkey in the prime of his usefulness, and

Whereas, During his thirty years of active practice in the City of Oakland he was beloved and respected by all, ever ready to sacrifice himself for others in public or private service, and in the high tide of his professional career, no call upon him was ever turned away.

He was cheerful, kindly and ever faithful to his fellowmen, and he has left an indelible impression on the hearts of his friends, and of a great community, which mourns his loss. Now, therefore, be it

Resolved, That in the death of Dr. Alonzo S. Larkey, the City of Oakland has lost a patriotic, esteemed citizen, and the medical profession a member of unusual ability, whose devotion to his chosen life work will always be an inspiration and challenge to those of us left to "carry on"; and be it further

Resolved, That these resolutions be entered upon the minutes of the Alameda County Medical Association, a copy sent to the State Medical Journal, and also one to the bereaved family, with the deepest sympathy of the Association.

## Deaths

GRAY, EDWARD.—A graduate of the College of Physicians & Surgeons, New York, 1875. Licensed in California 1877. Died while boarding a train in Berkeley, Calif., November 1, 1920.

SIMPSON, JESSIE H.—A graduate of Hahne-mann Medical College of the Pacific, San Francisco. 1905. Died in Banning, Calif., October 13, 1920. Age 47.

SNOWDEN, CORA.—A graduate of the Los Angeles College of Osteopathy, January, 1910. Licensed in California 1910. Died in San Francisco January 24, 1919.

STEVENSON, R. A.—A graduate of the Physicians & Surgeons, Keokuk, 1879. Licensed in California 1889. Died in Long Beach, Calif., October 15, 1920.

WEYER, G. A.—A graduate from the University of California 1899. Licensed to practice medicine in California 1900. Died in San Francisco, November 19, 1920. Was a member of the Medical Society, State of California.

WOODS, W. E. JOSEPHINE.—A graduate of University of California 1885. Licensed in California 1886. Died in Los Angeles October 15, 1920.

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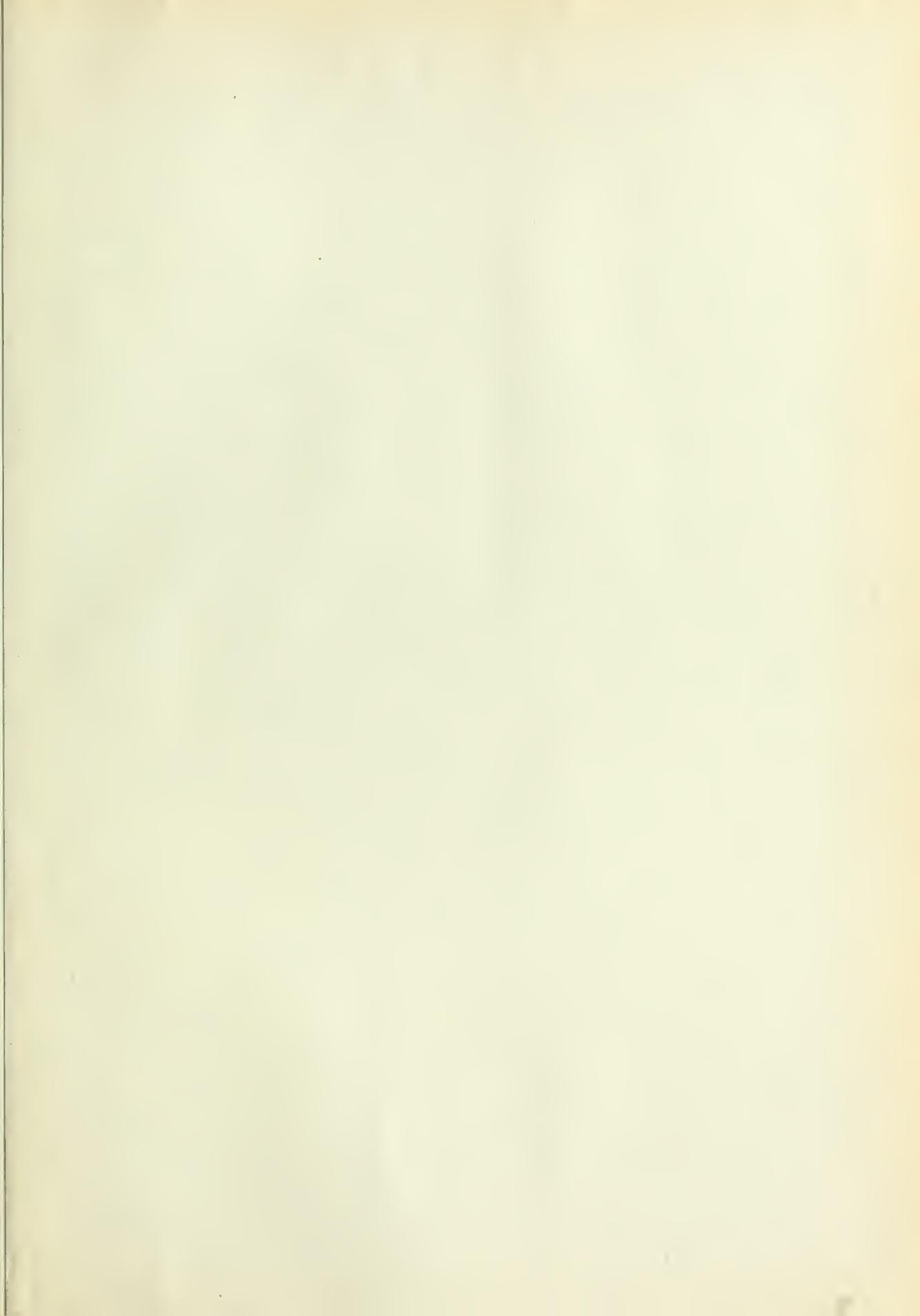


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